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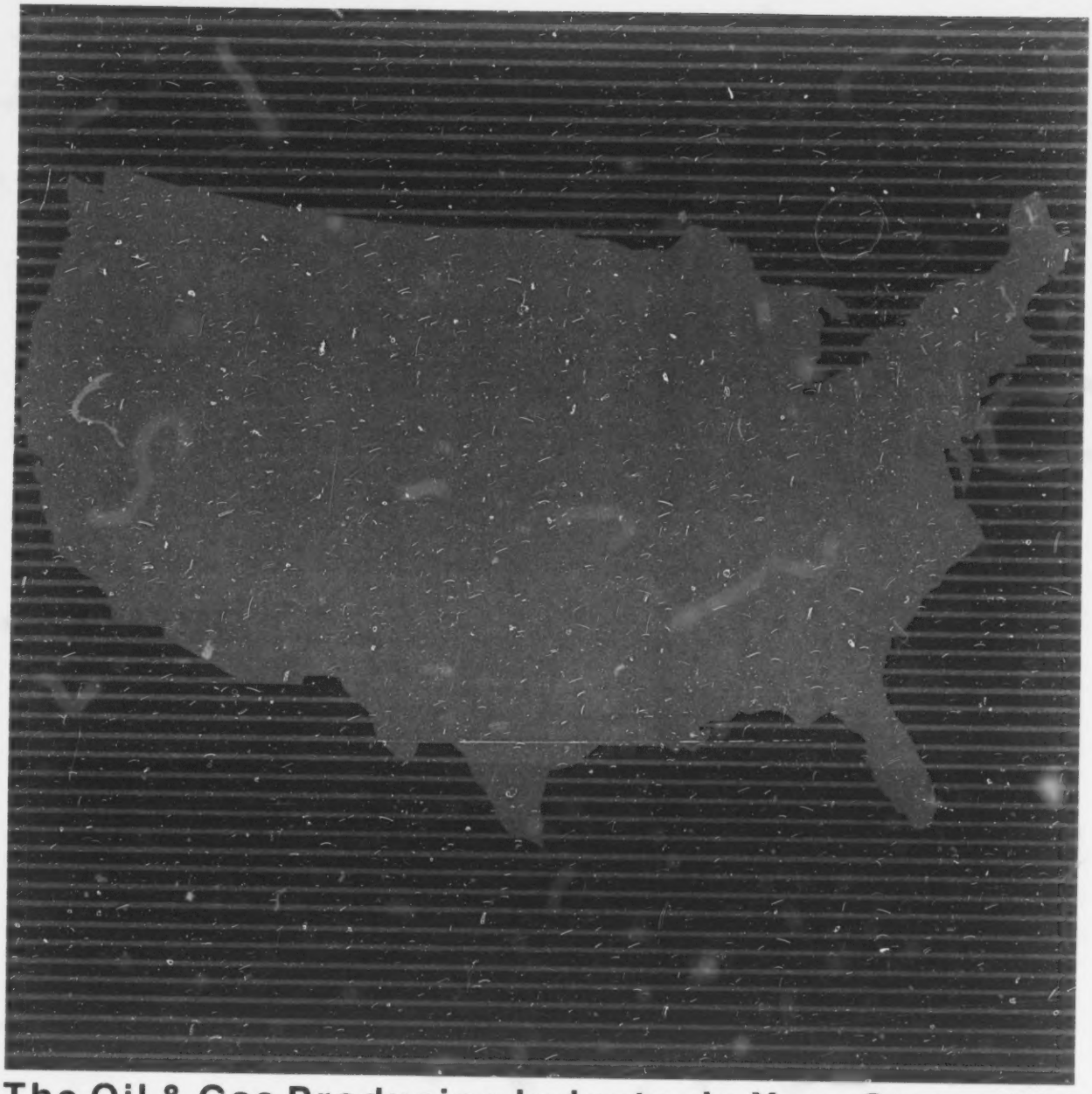
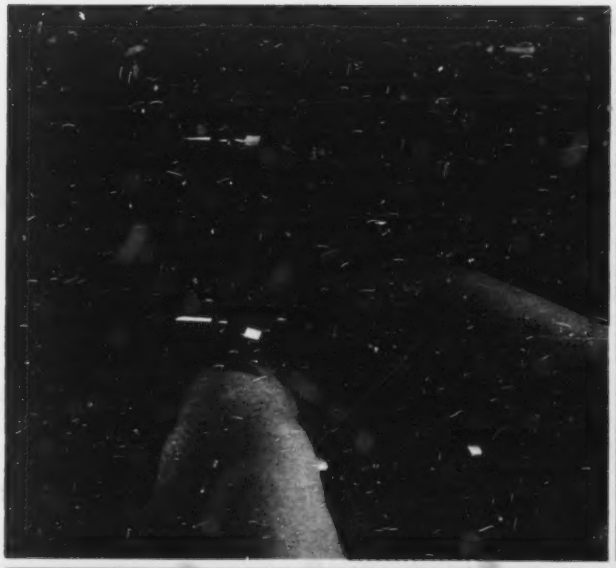
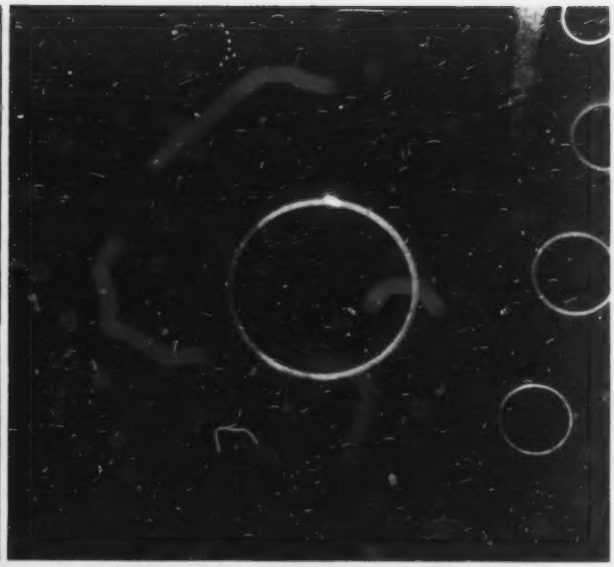
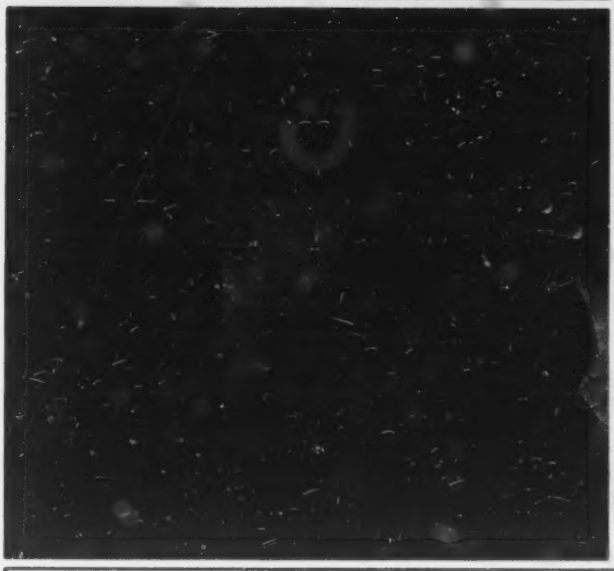
PETROLEUM
INDEPENDENT
September 1984



The Oil & Gas Producing Industry In Your State 1984







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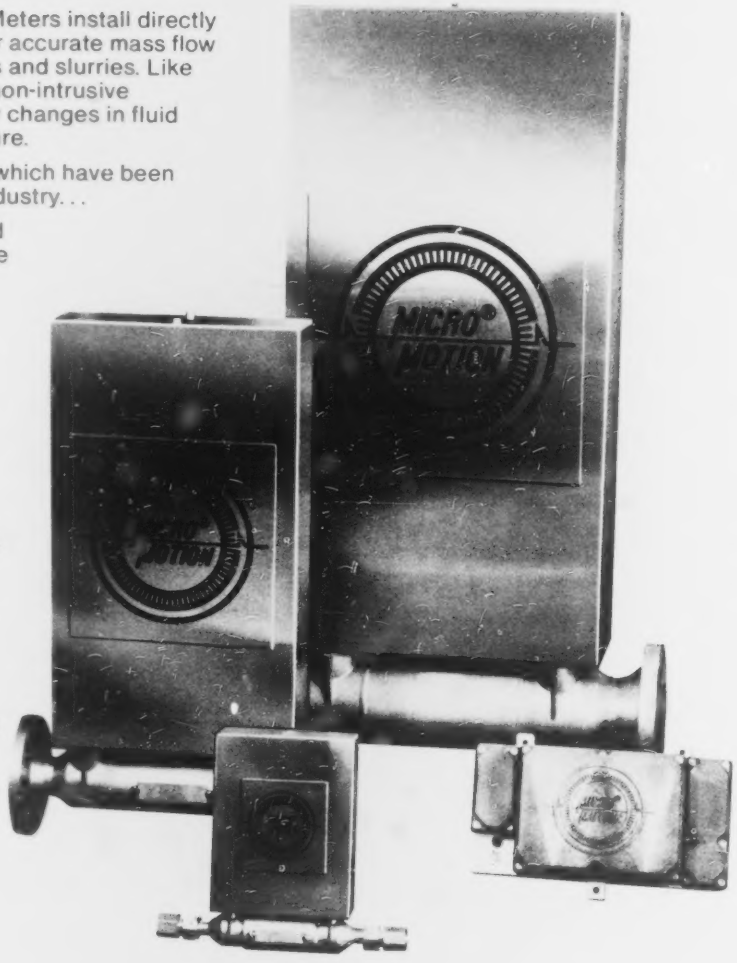

Standard Specifications

Specification	Units	Sensor Size							
		D6	D12	D25	D40	D100	D150	D300	D600
Flow Range	lbs/minute	0-2.0	0-11	0-80	0-120	0-1000	0-2800	0-7000	0-20000
	kgs/minute	0-.91	0-5.0	0-36	0-55	0-455	0-1270	0-3180	0-9090
Minimum Full Scale Flow	lbs/minute	.10	.55	4.0	6.0	50	140	350	1000
	kgs/minute	.05	.25	1.8	2.7	23	64	159	455
Rated Operating Pressure	psi	2800	3000	2800	1250	2250	1500	600	800
	bars	193	207	193	86	155	103	41	55

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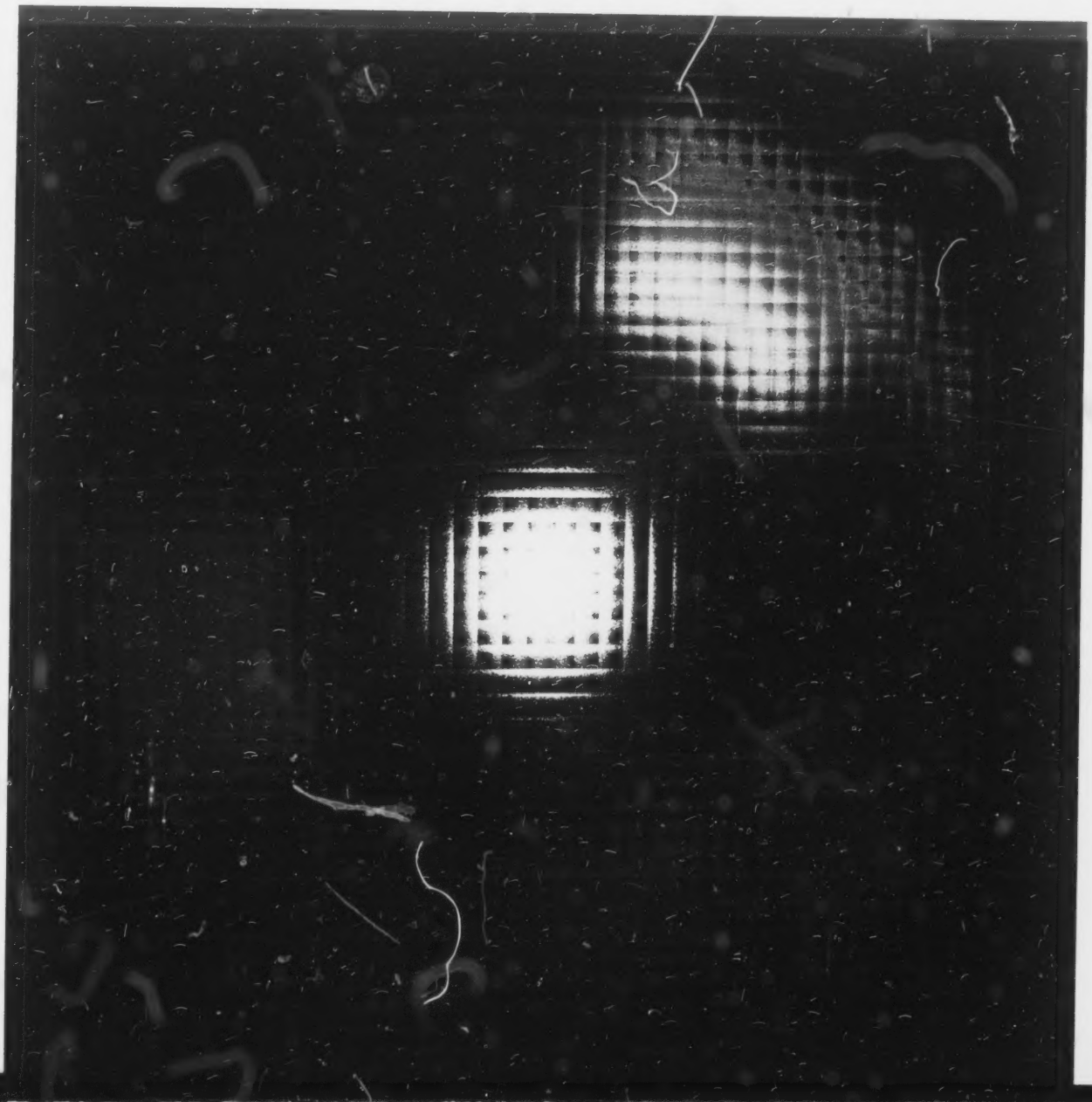

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THE OIL & GAS PRODUCING INDUSTRY IN YOUR STATE

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McCausland Design ..... Design and Production

The Oil & Gas Producing Industry In Your State is published each September by **Petroleum Independent,** official magazine of the Independent Petroleum Association of America (IPAA). Representing the 15,000 independent crude oil and natural gas producers, IPAA was founded as a national trade association in 1929.

This marks the 45th anniversary edition of **The Oil Producing Industry In Your State** which was first published in 1939. This year, the format has been changed in order to focus equally on natural gas and to include more comprehensive historical information. Accordingly, the title has been expanded to reflect these changes.

In order to cover printing, postage and handling, individual copies of this issue now cost $5.00 each. Complimentary subscribers to all IPAA publications include Association members, government agencies, schools, libraries, the press and non-profit organizations.

IPAA also offers a package of Statistical and Economic Reports to non-members for the subscription price of $200 annually. In addition to **The Oil & Gas Producing Industry In Your State,** the series includes the following publications:

Weekly Oil Trends (weekly)

Supply & Demand Outlook (monthly)

Wholesale Oil Prices (monthly)

United States Petroleum Statistics (semi-annual)

IPAA Supply & Demand Committee Report (semi-annual)

IPAA Cost Study Committee Report (semi-annual)

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NATURAL GAS — studies problems of natural gas production and recommends policies and courses of action.

PUBLIC LANDS — studies and comments on legislation and regulations affecting exploration for and the development of oil and natural gas on government owned lands.

TAX — studies and recommends policies and actions on federal tax issues pertaining to oil and gas production.

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OIL RECOVERY — studies and reports on the results of primary, secondary, and enhanced oil recovery techniques applied in the production of crude oil.

SUPPLY AND DEMAND — analyzes and reports on anticipated demand for petroleum and its products and the required supply to meet this demand.

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SPEAKERS BUREAU — educates the public on energy policies favorable to the oil industry through speeches to civic organizations, universities and the media.

For further information, contact:
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There is a road.

Many cancer patients need transportation to and from treatments. That's why the American Cancer Society has formed groups of volunteers across the United States who give a few hours of their time each month to drive them. The road to recovery can be a long and difficult one, but it can be that much easier when there are friends who can help along the way.

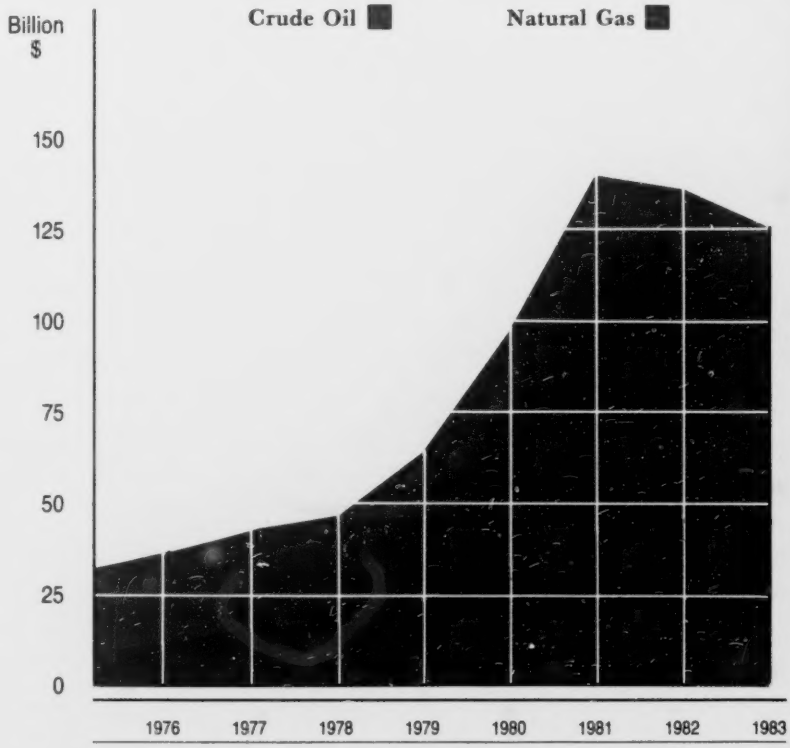
AMERICAN CANCER SOCIETY®

Creative Services Courtesy of Allison Associates, Boston, Mass.

This space contributed as a public service.

The Independent Petroleum Association of America began publishing *The Oil & Gas Producing Industry In Your State* in 1939 to illustrate the importance of petroleum to the economies of the 33 producing states. In this 45th anniversary edition, the nation-wide statistics clearly reflect the severity of the 1982-83 bust cycle which proved to be the worst domestic producers have ever had to survive. The focus of this book, however, remains on the individual producing states and their role in both the history and future of the United States energy industry.

WELLHEAD VALUE OF U.S. PETROLEUM



Crude oil was first produced commercially in 1859 followed by natural gas in 1881; both discoveries were made in Pennsylvania. Since then, almost 3 million wells have been drilled in America, producing 155 billion barrels of oil and 634 Tcf of natural gas on a cumulative basis. The largest amount of crude oil was produced in 1970, whereas natural gas production peaked 3 years later.

Crude oil and natural gas are by far the most valuable natural resources produced in America. In the separate state pages to follow, it will be seen that crude oil ranked first in the value of total mineral production in 16 of the 33 producing states. As for natural gas, Louisiana and

Oklahoma are two states in which it ranked first in the total value of minerals produced. Thus, it is not difficult to see how petroleum comprised 75 percent of the value of total mineral production in America during 1982, the latest year for which data is available.

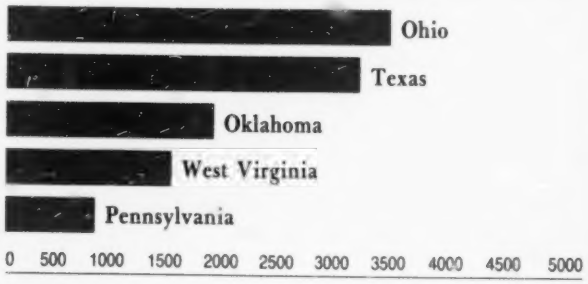
One indicator of the contribution that petroleum makes to the United States economy is its wellhead value. Shown here graphically, the value of oil and gas in current dollars peaked in 1981 and decreased thereafter. Last year, crude oil was valued at $83 billion and natural gas at almost $44 billion. This decline in wellhead value to $127 billion is attributable to a combination of (1) falling crude oil prices with no significant production gains and (2) a 10 percent drop in natural gas production.

A review of the year 1983 begins with the number of seismic exploration crews working, one oil and gas statistic that historically has led drilling trends. Although nationally it dropped by 13 percent from the 1982 level, several states showed measurable increases in their seismic crew counts: Kentucky, Ohio, Florida, Wyoming and Colorado.

Probably the most familiar indicator of the petroleum industry's health is the Hughes active rotary rig count. After falling precipitously until April when it bottomed out at 1,807, the rig count continued to climb ending the year at 2,870. Its annual average of 2,232 proved to be the lowest level since 1977. In particular, the most notable declines occurred in Oklahoma, New Mexico, Montana, Texas, Kansas, California and Louisiana.

"Despite the low rig count, 1983 was the second-best year ever for wells drilled.."

NUMBER OF GAS WELLS DRILLED



Despite the low rig count, 1983 was the second best year ever for wells drilled — 78,542 compared to the high in 1982 of 88,106. Most of these wells, over 88 percent, were drilled by independent operators, mainly in Ohio, Pennsylvania, Kansas, Kentucky, Oklahoma, Illinois and Texas.

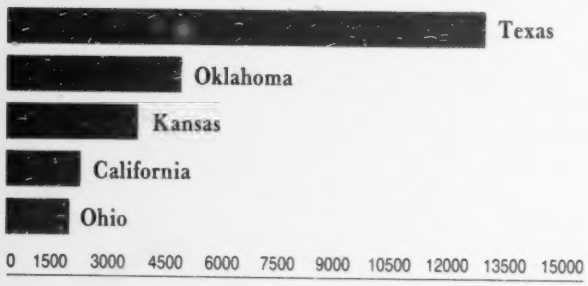
It can be seen from the charts on this page that the five states ranking the highest in oil wells drilled are not the same ones with the most gas wells. Combining all types of wells drilled in 1983, the top five states were Texas, Oklahoma, Kansas, Ohio and Louisiana, respectively. The same five states had the most well completions in 1982, except that fourth and fifth places were reversed.

New-field wildcat drilling fell by 18 percent in 1983 from the previous year. Predictably, Texas ranked first followed by Louisiana, Tennessee, Wyoming and Michigan in that order. Total exploratory wells declined by almost as much. Again, Texas led the list but, in this category, was followed by Kansas, Kentucky, Oklahoma and Illinois.

The number of wells drilled below 15,000 feet dropped last year to 1,054, down from the 1982 all-time high of 1,299 wells. Oklahoma was the site of most deep wells with nearly 80% taken to depths between 15,000 and 19,000 feet. The majority of this deep drilling occurred in the predominantly gas-producing Anadarko Basin.

Crude oil production rose only slightly during 1983 to 8,688,000 barrels per day. Most of the gains were made in the Alaskan North Slope but production did increase in 16 of the lower 48 states. Natural gas production, on the other hand, dropped 10% from the 1982 level to average 16,658

NUMBER OF OIL WELLS DRILLED



"New-field wildcat drilling fell by 18% in 1983.."

Bcf. There were a few states with rising gas production, such as North Dakota and Utah, but not by amounts sufficient to stem the overall decline. The accompanying bar charts illustrate the top five states in both oil and gas production.

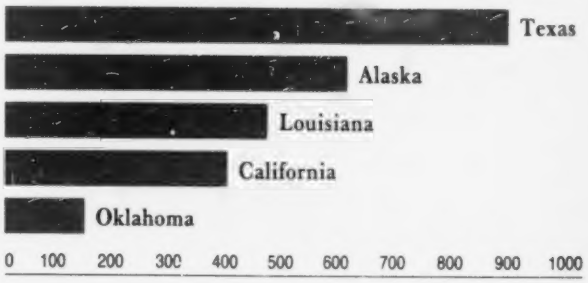
As for stripper wells, the number of producing wells rose to 416,493 in 1982, for which the latest data is available. Also increasing was the amount of crude oil produced by stripper wells, nearly 14% of the United States total of 441,951,028 barrels, mainly in Texas, Oklahoma, California and Kansas.

There are three series of state data unique to this publication each year. IPAA collects figures for (1) the amount of acreage under lease for oil and gas, (2) the number of employees in major segments of the domestic petroleum industry, and (3) the amount of severance and production taxes paid. The results of these surveys are presented on the individual state pages and in comprehensive tables at the back of the book.

First, the number of acres under lease in the United States has risen continually since 1976. An estimated 70 million acres were proven productive of either oil or gas in 1983, with nearly 524 million acres non-productive but still under lease. These two categories add to 26% of the total land area of America under lease for oil and gas.

"Crude oil production rose only slightly during 1983.."

CRUDE OIL PRODUCTION *(thous. bbls.)*



Second, approximately two million people were employed by the domestic petroleum industry in 1983. As might be expected, the top five states were Texas, Wyoming, California, Louisiana and Oklahoma. The most employees, just under 40 percent, were engaged in oil and gas extraction. Retail gasoline stations employed 30 percent of the total, with wholesale and transportation both holding 11 percent. Petroleum refining balanced out the total with 9 percent or 180,605 employees.

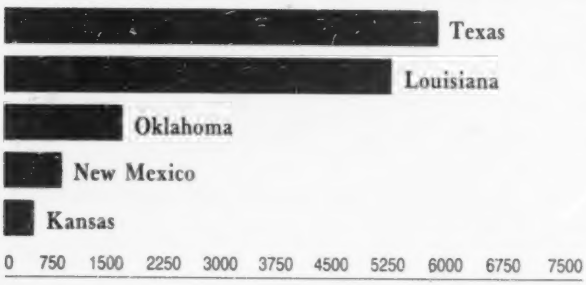
Finally, the amount of severance and production taxes paid by the petroleum industry dropped by over 9 percent from 1982. The total of $6.6 billion for 1983 includes both state and local taxes. Five states paying the most taxes mirror those ranking the highest in oil and gas production.

This book contains additional information about the petroleum industry too numerous to review here. In the back, one can find full-page tables containing state data on petroleum product consumption, costs of drilling and equipping wells, and an all-inclusive statistical summary. Beginning this year, an effort has been made to focus equally on natural gas with the insertion of several new tables. Furthermore, the format of the individual state pages has been changed in order to separate current data from cumulative and from figures that are necessarily lagged a year.

The Oil & Gas Producing Industry In Your State has a long tradition as one of the most widely-used petroleum reference books in academic, industry and government circles. As such, it is the Editor's sincere hope that this information includes all areas that might be of use to the readers. Therefore, please direct all questions, comments and suggestions to the IPAA Statistics Department and every attempt will be made to respond accordingly.

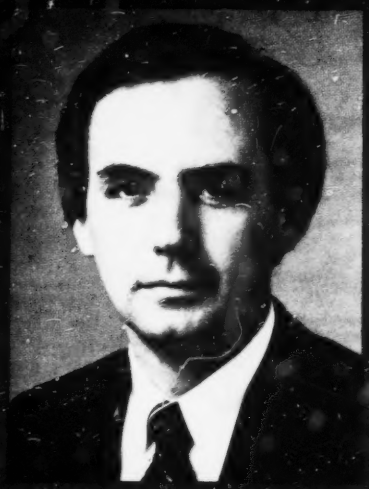
— Deborah Rowell
Editor

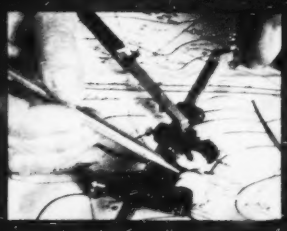
NATURAL GAS PRODUCTION *(MMcf)*



"Natural gas production... dropped 10% from the 1982 level.."

OF TEXAS





THE IPAA NEEDS YOU

The IPAA Speakers Bureau needs a few good people. Producers and those active in our industry who can speak to the public on our issues and help us get crucial points across to America's media.

Since 1976 the IPAA Speakers Bureau has trained more than 200 producers to meet this challenge. Since then, we have collectively visited nearly every major radio and television station and newspaper in this country. And many of them more than once.

The efforts of the Speakers Bureau alone in 1983 helped persuade editorial writers and directors to support natural gas decontrol. Those efforts resulted in newspaper editorializing in favor of decontrol by a margin of better than 4 to 1.

But today there is a demand for more speakers and some fresh blood. We need people who can travel or devote time to visit media outlets and groups in their hometowns. Our needs are particularly great in the east, midwest, south and west coast.

If you are interested, can donate a few days a year to those efforts and are willing to pay the expenses involved in travel and training, IPAA wants to bring you on board this successful venture.

In the next few months, IPAA will sponsor a communications training program featuring Arnold Zenker, nationally acclaimed media consultant. Zenker's and IPAA's efforts were featured early this year on CBS' "60 Minutes." The two-day intensive workshop will train you in all aspects of communication. The training will not only enable you to be a spokesperson for your industry but will greatly improve your communications techniques within your own company or business. Dates will be announced soon.

Training sessions are kept small so all participants get plenty of individualized attention, and you will learn by seeing yourself on videotape.

If you want to become part of this effort please send the attached coupon back today. An IPAA Speakers Bureau representative will contact you shortly.

I am interested in joining the IPAA Speakers Bureau. Please get back to me with more information on the upcoming Zenker training program.

Name

Business

Address

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Oil Data

. . . from the Energy Information Administration

- Weekly Petroleum Status Report
- Monthly Petroleum Statement (Annual also available)
- Monthly Petroleum Statistics Report
- Availability of Heavy Fuel Oils by Sulfur Content
- Supply, Disposition, and Stocks of All Oils by P.A.D. District and Imports into the United States by Country (Annual)
- Deliveries of Fuel Oil and Kerosene
- Sales of Liquified Petroleum Gases and Ethane
- Petroleum Refineries in the United States and U.S. Territories
- U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves (Annual)
- The Oil and Gas Drilling Industry
- Chronology of Oil and Gas Regulations
- Residential Energy Consumption Survey: Consumption and Expenditures
  - Part I National Data
  - Part II Regional Data
- The National Interim Energy Consumption Survey: Exploring the Variability in Energy Consumption
- Substitution of Coal for Oil and Gas in the Industrial Sector
- A Comparison of Energy Expenditures by Elderly and Nonelderly Households—1975 and 1985
- Fuel Choice for Heating New Single Family Homes
- International Energy Annual
- Monthly Energy Review
- Annual Report to Congress, Volumes I, II, III
- Short-Term Energy Outlook
- Costs and Indexes for Domestic Oil and Gas Field Equipment and Production Operations, 1980
- Monthly Petroleum Product Price Report
- Petroleum Market Shares: Report on Retail Sales of Gasoline
- Petroleum Market Shares: Report on Sales of Refined Petroleum Products
- Prices and Margins of No. 2 Distillate Fuel Oil
- Weekly Oil Update
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- Annual Energy Balance
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STATE DATA SOURCES

The format of the following state pages has been changed from earlier issues. To enable the reader to compare current to historical data, the listing below indicates for each category the item number used in previous editions (shown in parentheses). The editor gratefully acknowledges the following sources:

(1, 3)	Number of counties & land areas	*The World Almanac*
(2, 4-6)	Acreage under lease	IPAA survey
(15, 18-19, 31)	First & peak production years & wells drilled all time	*World Oil, AIME Statistical Yearbook, Oil & Gas Journal, World Petroleum Report,* International Oil Scouts Association, API & EIA
(28-29)	Deepest wells drilled	*World Oil*
(26)	Cumulative production & reserves	API, American Gas Association & EIA
(8-10)	Prices & wellhead value	EIA
(7)	Wellhead value all time	IPAA survey
(12-13)	Rank among principal minerals	Department of Interior
(14)	Taxes paid & number of employees	IPAA survey
(17)	Seismic crews	Society of Exploration Geophysicists
(27)	Rotary drilling rigs	Hughes Tool Company
(30)	Wells & footage drilled	API
(21, 23)	Producing wells & artificial lift	*World Oil*
(24-25)	Production & reserve position	EIA
(20)	Stripper wells	Interstate Oil Compact Commission & National Stripper Well Association

ENERGY CONVERSIONS

One barrel of crude oil
= 42 gallons
= 5,800,000 BTU's of energy
= 5,614 cubic feet of natural gas
= 0.22 ton of bituminous coal

One cubic foot of natural gas
= 7.48 gallons
= 1,032 BTU's of energy
= 0.000178 barrel of oil
= 0.000040 ton of bituminous coal

One short ton of bituminous coal
= 2,000 pounds
= 26,200,000 BTU's of energy
= 4.52 barrels of crude oil
= 25,314 cubic feet of natural gas

One metric ton of crude oil
= 2,204 pounds
= 7.46 barrels of domestic oil
= 6.99 barrels of foreign oil

One cubic meter of natural gas
= 35.314 cubic feet

ABBREVIATIONS

bbl.	= Barrel	ft.	= Foot
b/d	= Barrels per day	gal.	= Gallon
Mcf	= Thousand cubic feet	mftg.	= Manufacturing
MMcf	= Million cubic feet	BTU	= British Thermal Unit
Bcf	= Billion cubic feet	NGL	= Natural Gas Liquids
Tcf	= Trillion cubic feet	LPG	= Liquefied Petroleum Gases
thous.	= Thousand	EIA	= Energy Information Administration
mill.	= Million	API	= American Petroleum Institute

A Public Service of This Magazine
& The Advertising Council

To Life!

© 1983. The American National Red Cross.

Eddie Cruz, Delois Graham, and David Ames give blood regularly through their company blood drives.

Give Blood. Give Life.

Giving blood is everyone's business. After all, company blood drives provide a vital part of our nation's blood supply.

They benefit everyone. Your community gets much needed blood. Your employees get a lift when they give blood. And your company gets the good will.

So please have your firm start planning for a blood drive, today. And you can help save many lives tomorrow.

American Red Cross

We'll Help. Will You?

Here's why over 500 oil companies use our Mark II pumping unit.

In nearly every case, oil companies have found the Mark II less expensive to operate than conventional geometry pumping units.

Proven savings on installation and day-to-day operating costs.

The phased crank and unique geometry of the Mark II work together to lower peak torque requirements, permitting the use of small reducers and prime movers. When electric motors are used as prime movers, the uniform torque demand of the Mark II produces day-to-day savings in electrical consumption.

A geometry well-suited for rod pumping at extreme depths.

The lower acceleration at the bottom polished rod reversal decreases peak rod load significantly, making the Mark II the only unit suitable for low-cost sucker rod pumping at depths below 10,000 feet.

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Bak[illegible]field, CA, 805/327-3563
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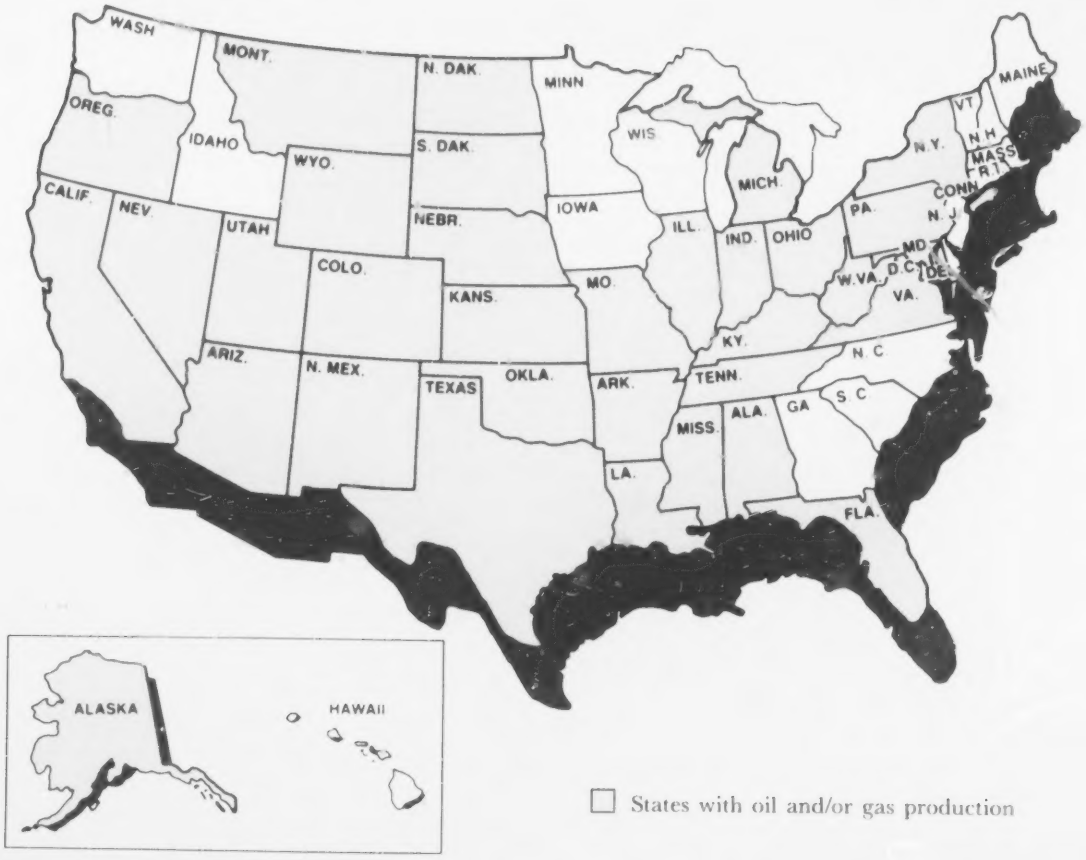


☐ States with oil and/or gas production

HISTORICAL INFORMATION

Number of states	50	
With oil and/or gas production	33	
Land area—*acres*	2,265,144,960	
Productive of oil and/or gas	69,018,667	
Non-productive of oil and/or gas	523,464,570	
Percentage of acreage leased	26%	
First year of production:		
Crude oil	1859	
Natural gas	1881	
Year and amount of peak production:		
Crude oil—3,517,450,000 *bbls.*	1970	
Natural gas—22,647,549 *MMcf*	1973	
Deepest well drilled: *ft.*		
Natural gas	26,536	
Dry hole	31,441	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	1,626,970	*58%*
Gas wells	333,132	*12%*
Dry holes	868,162	*30%*
Total	**2,828,264**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas
	(mill. bbls.)			*Bcf*
Reserves	161,395	28,597	189,992	843,632
Production	133,537	21,376	154,913	634,378

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$26.19
Natural gas—*$/Mcf*	$2.62
Wellhead value of 1983 production: *thous.*	
Crude oil	$83,048,464
Natural gas	$43,642,637
Crude oil wellhead value all time to 12/31/83—*thous.*	$756,666,438
Rank among principal minerals and percentage of total value:	
Crude oil—1st	49%
Natural gas—2nd	26%
Severance and production taxes paid in 1983—*local and state*	$6,606,884,146
Number of employees in oil and gas production in 1983	776,444

1983 INDUSTRY STATISTICS

Seismic crew months worked 4,943
Rotary drilling rigs active—*average* 2,232

Number of wells drilled:

	Wildcat	Development	Total
Oil	2,093	35,114	**37,207**
Gas	1,889	13,739	**15,628**
Dry	9,908	13,586	**23,494**
Service	—	2,213	**2,213**
Total	**13,890**	**64,652**	**78,542**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	10,703.7	125,203.2	**135,906.9**
Gas	11,579.6	71,646.5	**83,226.1**
Dry	49,936.0	56,690.8	**106,626.8**
Service	—	5,063.1	**5,063.1**
Total	**72,219.3**	**258,603.6**	**330,822.9**

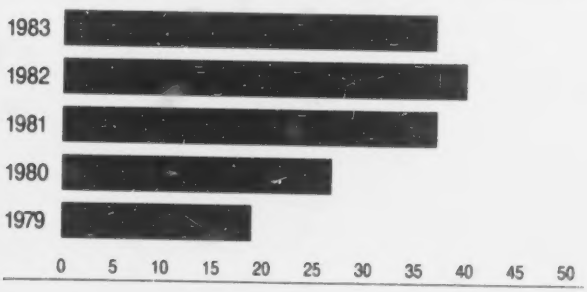
Number of new-field wildcats drilled 6,487

State-wide rank in:	Crude Oil	Natural Gas
Total wells	Not Applicable	Not Applicable
Production	Not Applicable	Not Applicable
Reserves *(1982)*	Not Applicable	Not Applicable

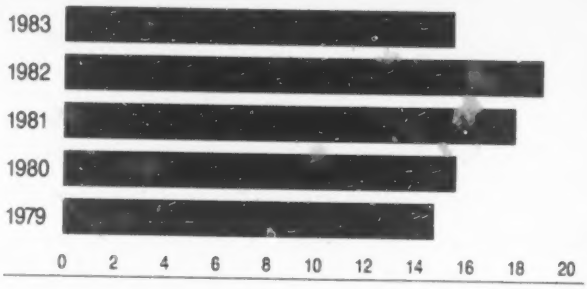
Number of producing wells: *Dec. 31*
Crude oil 603,290
Natural gas and distillate 214,354
Total 817,644
Percentage of wells on artificial lift 95%

Average daily production:
Crude oil—*bbls.* 8,687,669
NGL—*bbls.* 1,800,000
Total liquids—*bbls.* 10,487,669
Natural gas—*Mcf* 45,636,973

NUMBER OF OIL WELLS DRILLED *(thous.)*



NUMBER OF GAS WELLS DRILLED *(thous.)*



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	1,382	874	**2,256**
Production	2,950	721	**3,671**
Net reserve change	– 1,568	153	**– 1,415**
Proved reserves	27,858	7,221	**35,079**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	3,784	14,328	**18,112**
Production	3,248	15,044	**18,292**
Net reserve change	536	– 716	**– 180**
Proved reserves	62,082	147,172	**209,254**

Number of producing stripper wells—*Dec. 31* 416,493
Number of stripper well abandonments 9,426
Crude oil stripper production—*thous. bbls.* 441,951,028
Percentage of oil produced by stripper wells 14%
Stripper well reserves: *thous. bbls.*
Primary 2,594,032
Secondary 1,860,365
Total **4,454,397**

Total drilling costs $39,428,118,568
Cost per well $514,378
Cost per foot $108.73

Note: Represents most currently available data.

STATE ENERGY OFFICE

Energy Information Administration
Forrestal Building, Room IF-048
1000 Independence Avenue, S.W.
Washington, D.C. 20585
Ph. 202-252-8800

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	67	
With oil and/or gas production	15	
Land area—*acres*	32,490,880	
Productive of oil and/or gas	276,428	
Non-productive of oil and/or gas	9,139,606	
Percentage of acreage leased	29%	
First year of production:		
Crude oil	1944	
Natural gas	1904	
Year and amount of peak production:		
Crude oil—22,153,000 *bbls.*	1980	
Natural gas—119,334 *MMcf*	1981	
Deepest well drilled: *ft.*		
Natural gas	21,650	
Dry hole	21,859	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	847	*24%*
Gas wells	579	*16%*
Dry holes	2,145	*60%*
Total	**3,571**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	288	285	573	1,186
Production	234	92	326	490

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$30.07
Natural gas—*$/Mcf*	$3.52
Wellhead value of 1983 production: *thous.*	
Crude oil	$563,692
Natural gas	$253,894
Crude oil wellhead value all time to 12/31/83—*thous.*	$3,797,480
Rank among principal minerals and percentage of total value:	
Crude oil—1st	25%
Natural gas—3rd	11%
Severance and production taxes paid in 1983—*local and state*	$80,958,822
Number of employees in oil and gas production in 1983	1,758

1983 INDUSTRY STATISTICS

Seismic crew months worked 105
Rotary drilling rigs active—*average* 16

Number of wells drilled:

	Wildcat	Development	Total
Oil	2	19	**21**
Gas	21	48	**69**
Dry	63	37	**100**
Service	—	0	**0**
Total	**86**	**104**	**190**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	32.2	86.9	**119.1**
Gas	77.1	228.4	**305.5**
Dry	404.1	252.7	**656.8**
Service	—	0	**0**
Total	**513.4**	**568.0**	**1,081.4**

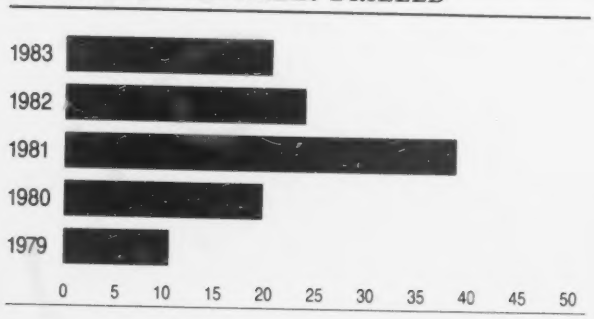
Number of new-field wildcats drilled 86

State-wide rank in:	Crude Oil	Natural Gas
Total wells	26th	18th
Production	18th	17th
Reserves *(1982)*	19th	18th

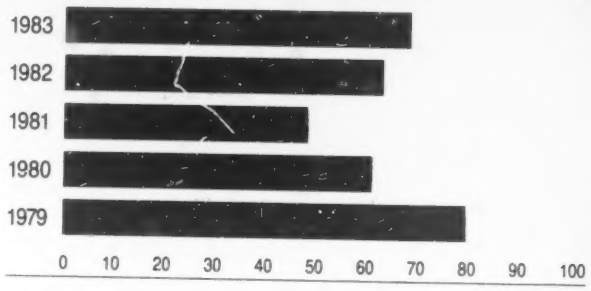
Number of producing wells: *Dec. 31*
Crude oil 741
Natural gas and distillate 540
Total 1,281
Percentage of wells on artificial lift 86%

Average daily production:
Crude oil—*bbls.* 51,359
NGL—*bbls.* 43,000
Total liquids—*bbls.* 94,359
Natural gas—*Mcf* 197,614

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	6	17	**23**
Production	7	16	**23**
Net reserve change	–1	1	**0**
Proved reserves	54	193	**247**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	7	93	**100**
Production	5	82	**87**
Net reserve change	2	11	**13**
Proved reserves	27	669	**696**

Number of producing stripper wells—*Dec. 31* 92
Number of stripper well abandonments 4
Crude oil stripper production—*thous. bbls.* 157,725
Percentage of oil produced by stripper wells 2%
Stripper well reserves: *thous. bbls.*
Primary 421
Secondary 20
Total **441**

Total drilling costs $182,563,538
Cost per well $941,049
Cost per foot $150.65

Note: Represents most currently available data.

STATE ENERGY OFFICE

Alabama State Oil and Gas Board
Drawer 0
University, AL 35486
Ph. 205-349-2852

☐ Areas with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	Not Applicable	
With oil and/or gas production	Not Applicable	
Land area—*acres*	365,333,120	
Productive of oil and/or gas	521,983	
Non-productive of oil and/or gas	10,052,556	
Percentage of acreage leased	3%	
First year of production:		
Crude oil	1905	
Natural gas	1945	
Year and amount of peak production:		
Crude oil—625,527,000 *bbls.*	1983	
Natural gas—267,096 *MMcf*	1983	
Deepest well drilled: *ft.*		
Crude oil	14,952	
Dry hole	20,335	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	1,218	*68%*
Gas wells	115	*6%*
Dry holes	465	*26%*
Total	**1,798**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	11,091	17	11,108	37,631
Production	3,685	8	3,693	2,629

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$17.18
Natural gas—*$/Mcf*	$0.66
Wellhead value of 1983 production: *thous.*	
Crude oil	$10,746,554
Natural gas	$176,117
Crude oil wellhead value all time to 12/31/83—*thous.*	$48,597,334
Rank among principal minerals and percentage of total value:	
Crude oil—1st	97%
Natural gas—2nd	2%
Severance and production taxes paid in 1983—*local and state*	$1,493,700,000
Number of employees in oil and gas production in 1983	7,535

1983 INDUSTRY STATISTICS

Seismic crew months worked 58
Rotary drilling rigs active—*average* 14

Number of wells drilled:

	Wildcat	Development	Total
Oil	0	163	**163**
Gas	1	1	**2**
Dry	2	7	**9**
Service	—	16	**16**
Total	**3**	**187**	**190**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	0	1,496.8	**1,496.8**
Gas	3.1	21.0	**24.0**
Dry	17.4	55.9	**73.3**
Service	—	89.9	**89.9**
Total	**20.5**	**1,663.6**	**1,684.0**

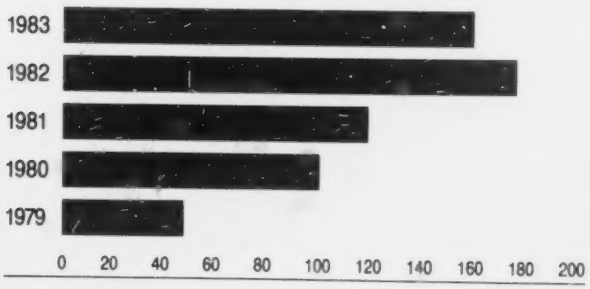
Number of new-field wildcats drilled 2

State-wide rank in:	Crude Oil	Natural Gas
Total wells	20th	26th
Production	2nd	8th
Reserves *(1982)*	2nd	3rd

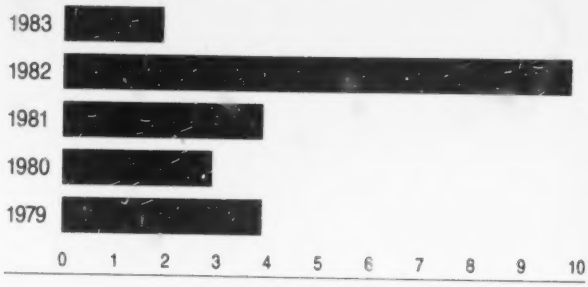
Number of producing wells: *Dec. 31*
Crude oil 672
Natural gas and distillate 103
Total 775
Percentage of wells on artificial lift 40%

Average daily production:
Crude oil—*bbls.* 1,713,773
NGL—*bbls.* 1,300
Total liquids—*bbls.* 1,715,073
Natural gas—*Mcf* 731,770

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	-250	-1	**-251**
Production	627	0	**627**
Net reserve change	-877	-1	**-878**
Proved reserves	7,406	9	**7,415**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	2,212	3	**2,215**
Production	74	188	**262**
Net reserve change	2,138	-185	**1,953**
Proved reserves	30,814	4,188	**35,002**

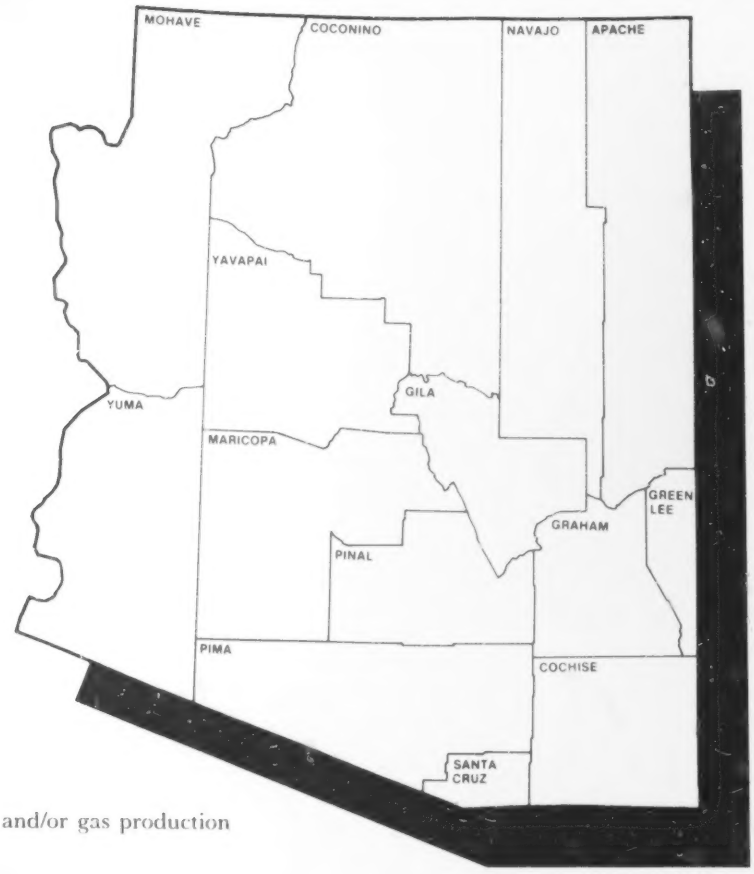
Number of producing stripper wells—*Dec. 31* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of oil produced by stripper wells .... Not Applicable
Stripper well reserves: *thous. bbls.*
Primary 0
Secondary 0
Total **0**

Total drilling costs $816,926,892
Cost per well $4,232,782
Cost per foot $422.89

Note: Represents most currently available data.

STATE ENERGY OFFICE

Alaska Oil and Gas Conservation Committee
3001 Porcupine Drive
Anchorage, AK 99501
Ph. 907-279-1433



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	14	
With oil and/or gas production	1	
Land area—*acres*	72,645,120	
Productive of oil and/or gas	6,080	
Non-productive of oil and/or gas	23,724,600	
Percentage of acreage leased	33%	
First year of production:		
Crude oil	1954	
Natural gas	1955	
Year and amount of peak production:		
Crude oil—3,370,000 *bbls.*	1968	
Natural gas—3,161 *MMcf*	1966	
Deepest well drilled: *ft.*		
Crude oil	6,793	
Dry hole	18,013	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	53	*11%*
Gas wells	35	*7%*
Dry holes	384	*82%*
Total	**472**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$31.00
Natural gas—*$/Mcf*	$2.72
Wellhead value of 1983 production: *thous.*	
Crude oil	$7,347
Natural gas	$204
Crude oil wellhead value all time to 12/31/83—*thous.*	$69,836
Rank among principal minerals and percentage of total value:	
Crude oil—9th	0.40%
Natural gas—13th	0.01%
Severance and production taxes paid in 1983—*local and state*	Unavailable
Number of employees in oil and gas production in 1983	163

1983 INDUSTRY STATISTICS

Seismic crew months worked 4
Rotary drilling rigs active—*average* ..... Unavailable

Number of wells drilled:

	Wildcat	Development	Total
Oil	0	0	**0**
Gas	0	1	**1**
Dry	10	0	**10**
Service	—	5	**5**
Total	**10**	**6**	**16**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	0	0	**0**
Gas	0	5.2	**5.2**
Dry	33.1	0	**33.1**
Service	—	38.9	**38.9**
Total	**33.1**	**44.1**	**77.2**

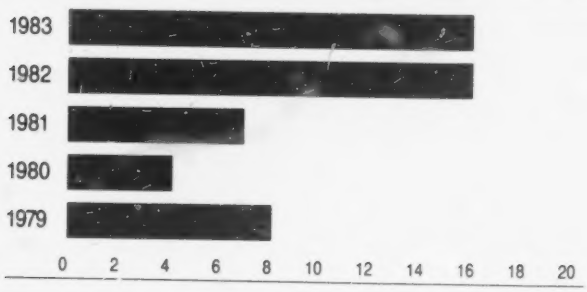
Number of new-field wildcats drilled 10

State-wide rank in:	Crude Oil	Natural Gas
Total wells	Not Applicable	27th
Production	30th	29th
Reserves *(1982)*	Unavailable	Unavailable

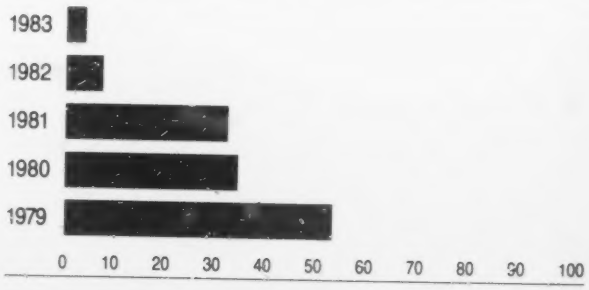
Number of producing wells: *Dec. 31*
Crude oil 34
Natural gas and distillate 0
Total 34
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 649
NGL—*bbls.* 0
Total liquids—*bbls.* 649
Natural gas—*Mcf* 206

NUMBER OF TOTAL WELLS DRILLED



SEISMIC CREW MONTHS WORKED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net reserve change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Number of producing stripper wells—*Dec. 31* 14
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 23,944
Percentage of oil produced by stripper wells 7%
Stripper well reserves: *thous. bbls.*
Primary 20
Secondary 0
Total **20**

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Arizona Oil and Gas Conservation Commission
1645 West Jefferson Street
Suite 420
Phoenix, AZ 85007
Ph. 602-255-5161

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	75	
With oil and/or gas production	24	
Land area—*acres*	33,329,920	
Productive of oil and/or gas	1,200,000	
Non-productive of oil and/or gas	12,100,000	
Percentage of acreage leased	40%	
First year of production:		
Crude oil	1921	
Natural gas	1889	
Year and amount of peak production:		
Crude oil—77,398,000 *bbls.*	1925	
Natural gas—181,351 *MMcf*	1970	
Deepest well drilled: *ft.*		
Natural gas	11,195	
Dry hole	17,349	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	16,887	*54%*
Gas wells	2,767	*9%*
Dry holes	11,692	*37%*
Total	**31,346**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	1,641	92	1,733	5,866
Production	1,534	77	1,611	3,892

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$28.28
Natural gas—*$/Mcf*	$2.53
Wellhead value of 1983 production: *thous.*	
Crude oil	$533,050
Natural gas	$215,809
Crude oil wellhead value all time to 12/31/83—*thous.*	$5,843,084
Rank among principal minerals and percentage of total value:	
Crude oil—1st	53%
Natural gas—2nd	21%
Severance and production taxes paid in 1983—*local and state*	$22,812,581
Number of employees in oil and gas production in 1983	3,946

1983 INDUSTRY STATISTICS

Seismic crew months worked 117
Rotary drilling rigs active—*average* 26

Number of wells drilled:

	Wildcat	Development	Total
Oil	2	303	**305**
Gas	2	187	**189**
Dry	148	198	**346**
Service	—	20	**20**
Total	**152**	**708**	**860**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	12.5	1,250.1	**1,262.6**
Gas	19.2	989.0	**1,008.2**
Dry	809.0	867.4	**1,676.4**
Service	—	71.6	**71.6**
Total	**840.7**	**3,178.1**	**4,018.8**

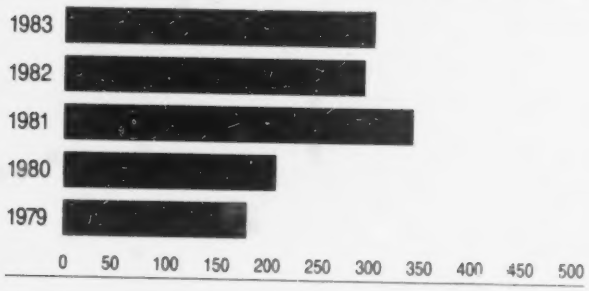
Number of new-field wildcats drilled 145

State-wide rank in:	Crude Oil	Natural Gas
Total wells	16th	13th
Production	17th	16th
Reserves *(1982)*	17th	12th

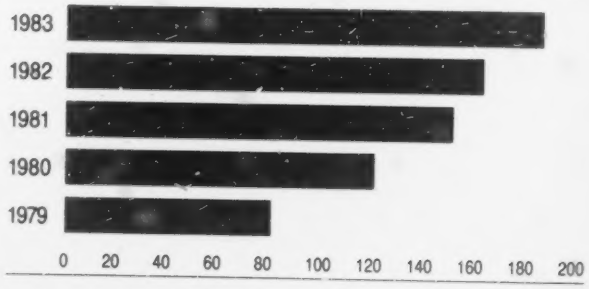
Number of producing wells: *Dec. 31*
Crude oil 8,370
Natural gas and distillate 1,850
Total 10,220
Percentage of wells on artificial lift 98%

Average daily production:
Crude oil—*bbls.* 51,641
NGL—*bbls.* 3,000
Total liquids—*bbls.* 54,641
Natural gas—*Mcf* 233,699

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	10	0	**10**
Production	16	1	**17**
Net reserve change	– 6	– 1	**– 7**
Proved reserves	107	15	**122**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	– 1	313	**312**
Production	9	150	**159**
Net reserve change	– 10	163	**153**
Proved reserves	174	1,800	**1,974**

Number of producing stripper wells—*Dec. 31* 5,167
Number of stripper well abandonments 91
Crude oil stripper production—*thous. bbls.* 5,131,933
Percentage of oil produced by stripper wells 32%
Stripper well reserves: *thous. bbls.*
Primary 164,542
Secondary 41,515
Total **206,057**

Total drilling costs $272,573,898
Cost per well $336,096
Cost per foot $68.06

Note: Represents most currently available data.

STATE ENERGY OFFICE

Arkansas Oil and Gas Commission
314 East Oak Street
El Dorado, AR 71730
Ph. 501-862-4965

PERFORMANCE

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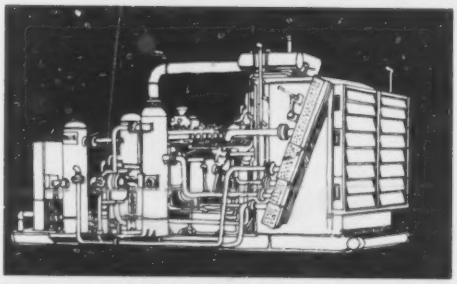

Second rate equipment means second rate performance, and that translates into expensive downtime. At SEPCO, we've been packaging the most dependable names in the industry for over thirty years. And, we've even designed our units with extra features that increase reliability under adverse conditions.

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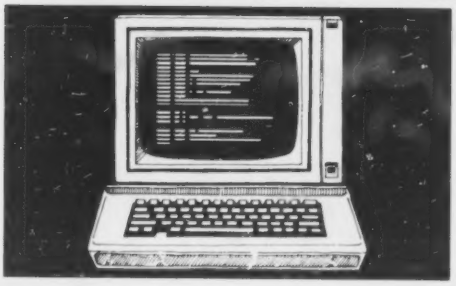

Any company will repair your compressor once it breaks down. That's nothing new. At SEPCO, we've got a unique maintenance program that anticipates problems and prevents production delays. By computerizing the life expectancy of parts, we eliminate additional service calls and costly downtime.

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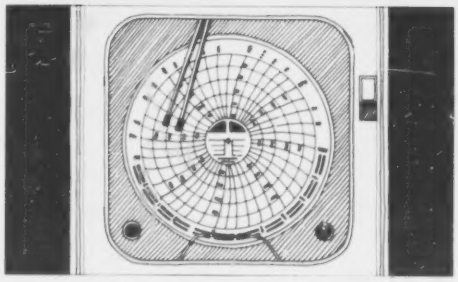

You get paid for the gas that flows through the sales meter. If you sacrifice consistent, on-line dependability for cut-rate rentals, you don't save dollars, you lose revenues. At SEPCO, we've committed our full resources to keeping your compressor on line, all the time.

For more information on how SEPCO can improve your bottom line, or for literature on our company, equipment and capabilities, please call or write John Bowen, Vice President and General Manager.

sepco

Compression Services, Inc.

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An important IPAA message for:

STRIPPER WELL OPERATORS

The Independent Petroleum Association of America has fought and won major legislative battles for the nation's stripper well industry. Operators across the country owe a lot to IPAA efforts in tax and regulatory issues the association has relentlessly challenged—and with great success. A membership of only $350 per year, about one barrel of stripper production a month, would be an endorsement of IPAA and its voice on Capitol Hill.

So, please take the coupon below and increase your IPAA dues to whatever you feel the IPAA deserves for its efforts on your behalf. If you know a stripper producer that is not a member, remind him of the benefits he receives and use the coupon.

The history of stripper well legislation is one of long involvement by the Independent Petroleum Association of America. Working with congressional leaders, IPAA first sought and obtained exemption of all stripper oil from the devastating price controls that caused premature abandonment of thousands of stripper wells and the loss of millions of barrels of recoverable oil from border-line wells.

Following the successful conclusion of that project, IPAA stayed with the stripper well operators and sought and received favorable designation procedures when the oil industry's foes would have once again wasted recoverable production.

The petroleum industry faced its next challenge when the liberals in Congress began promoting the "windfall profit" taxation and once again, IPAA led the fight over stripper production and its classification under the tax act. Though not perfect, the legislation was "cleaned up" so once again valuable resources would not be left prematurely untapped. The IPAA stuck with the stripper well producers and they profited from those IPAA efforts.

In the Reagan-supported "Economic Recovery Tax Act of 1981," the efforts of IPAA secured exemption from the "windfall profit" tax for stripper well production owned by independents.

This exemption becomes effective Jan. 1, 1983, and could mean $3 or more per barrel for the stripper well industry. It will allow the stripper industry to recover much more of the high-cost, low-production petroleum that would have been lost without IPAA efforts.

In 1983, IPAA is asking stripper well producers if the association's efforts haven't been worth at least a barrel of stripper oil a month, 12 barrels a year, or rounded off to a minimum dues of $350 per year. It's the best value in the industry.

We recognize these are not easy times in the industry, and money is often hard to come by. But the problems our industry face are simply not limited to the good times. IPAA's battle for stripper well operators has been an ongoing one and we need your continuing and increased support.

Independent Petroleum Association of America
1101 16th Street, N.W., Washington, D.C. 20036

(Use this coupon to sign up a stripper well operator or add to your support)

Attached is my check, payable to IPAA in the amount of $_____

Name_____

Company_____

Address_____

City, State, Zip_____

(Minimum dues for NEW MEMBER or to add an ASSOCIATE MEMBER: $200.)
Membership recommended by or an Associate named by:

Name_____

City, State_____

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	58	
With oil and/or gas production	30	
Land area—*acres*	100,031,360	
Productive of oil and/or gas	433,791	
Non-productive of oil and/or gas	8,132,000	
Percentage of acreage leased	9%	
First year of production:		
Crude oil	1861	
Natural gas	1889	
Year and amount of peak production:		
Crude oil—404,688,000 *bbls.*	1983	
Natural gas—714,893 *MMcf*	1968	
Deepest well drilled: *ft.*		
Crude oil	18,060	
Dry hole	22,711	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	100,233	*78%*
Gas wells	3,015	*2%*
Dry holes	25,745	*20%*
Total	**128,993**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	24,973	1,316	26,289	35,353
Production	19,568	1,162	20,730	29,606

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$21.58
Natural gas—*$/Mcf*	$3.13
Wellhead value of 1983 production: *thous.*	
Crude oil	$8,733,167
Natural gas	$1,237,968
Crude oil wellhead value all time to 12/31/83—*thous.*	$81,205,580
Rank among principal minerals and percentage of total value:	
Crude oil—1st	75%
Natural gas—2nd	11%
Severance and production taxes paid in 1983—*local and state*	$5,467,287
Number of employees in oil and gas production in 1983	40,081

1983 INDUSTRY STATISTICS

Seismic crew months worked 186
Rotary drilling rigs active—*average* 106

Number of wells drilled:

	Wildcat	Development	Total
Oil	60	2,300	**2,360**
Gas	28	53	**81**
Dry	134	95	**229**
Service	—	493	**493**
Total	**222**	**2,941**	**3,163**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	354.8	5,474.2	**5,829.0**
Gas	197.3	337.2	**534.5**
Dry	888.1	445.5	**1,333.6**
Service	—	893.1	**893.1**
Total	**1,440.2**	**7,150.0**	**8,590.2**

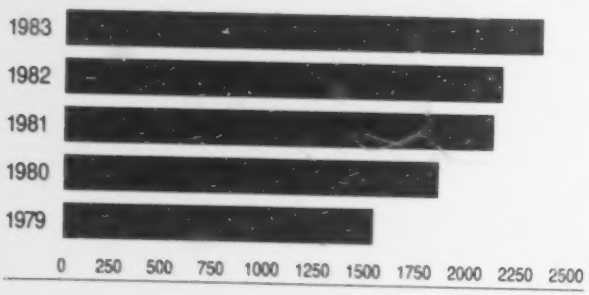
Number of new-field wildcats drilled 74

State-wide rank in:	Crude Oil	Natural Gas
Total wells	4th	17th
Production	4th	7th
Reserves *(1982)*	3rd	8th

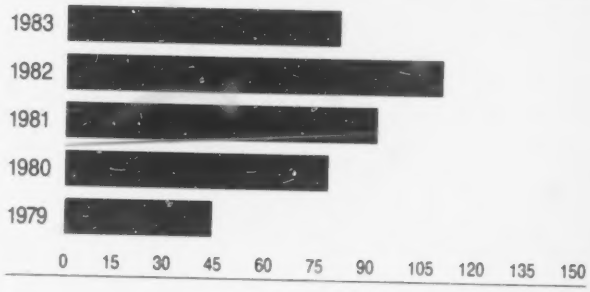
Number of producing wells: *Dec. 31*
Crude oil 47,197
Natural gas and distillate 1,082
Total 48,279
Percentage of wells on artificial lift 97%

Average daily production:
Crude oil—*bbls.* 1,108,734
NGL—*bbls.* 32,870
Total liquids—*bbls.* 1,141,604
Natural gas—*Mcf* 1,083,608

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	358	84	**442**
Production	394	12	**406**
Net reserve change	–36	72	**36**
Proved reserves	5,405	154	**5,559**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	188	215	**403**
Production	210	160	**370**
Net reserve change	–22	55	**33**
Proved reserves	3,877	1,870	**5,747**

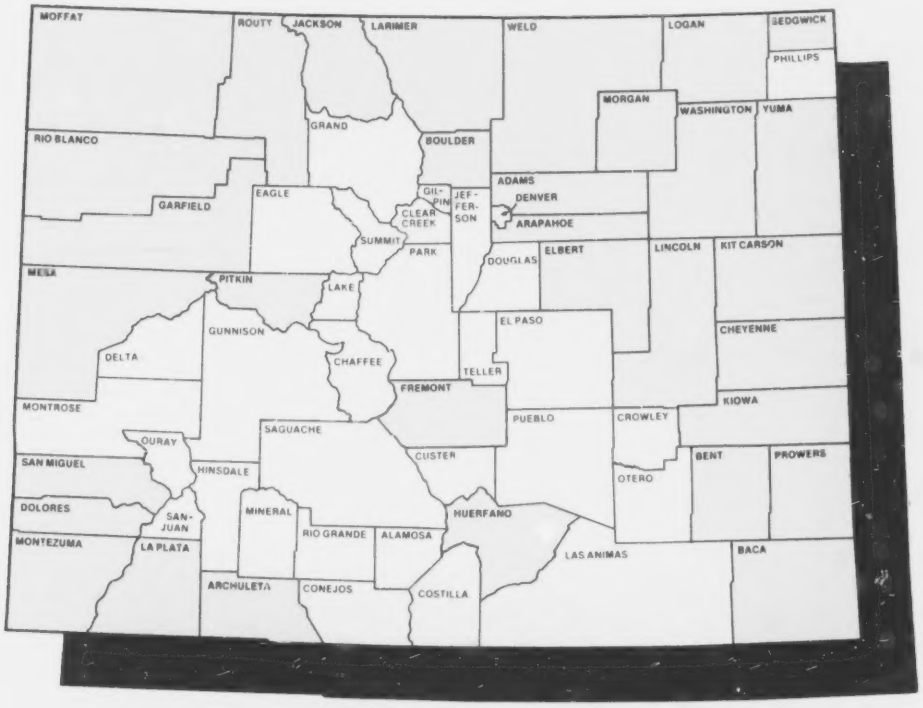
Number of producing stripper wells—*Dec. 31* 26,354
Number of stripper well abandonments 886
Crude oil stripper production—*thous. bbls.* 55,419,356
Percentage of oil produced by stripper wells 15%
Stripper well reserves: *thous. bbls.*
Primary 230,787
Secondary 40,727
Total **271,514**

Total drilling costs $1,412,413,083
Cost per well $522,535
Cost per foot $148.93

Note: Represents most currently available data.

STATE ENERGY OFFICE

California Department of Conservation
Division of Oil and Gas
1416 Ninth Street, Room 1310
Sacramento, CA 95814
Ph. 916-445-9686



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	63	
With oil and/or gas production	32	
Land area—*acres*	66,300,800	
Productive of oil and/or gas	1,447,520	
Non-productive of oil and/or gas	34,084,000	
Percentage of acreage leased	54%	
First year of production:		
Crude oil	1862	
Natural gas	1893	
Year and amount of peak production:		
Crude oil—58,516,000 *bbls.*	1956	
Natural gas—209,892 *MMcf*	1982	
Deepest well drilled: *ft.*		
Natural gas	17,632	
Dry hole	19,710	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	9,150	*27%*
Gas wells	5,814	*17%*
Dry holes	18,867	*56%*
Total	**33,831**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	1,518	327	1,845	7,454
Production	1,349	141	1,490	3,903

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$28.91
Natural gas—*$/Mcf*	$3.29
Wellhead value of 1983 production: *thous.*	
Crude oil	$839,836
Natural gas	$553,115
Crude oil wellhead value all time to 12/31/83—*thous.*	$8,630,366
Rank among principal minerals and percentage of total value:	
Crude oil—1st	34%
Natural gas—2nd	23%
Severance and production taxes paid in 1983—*local and state*	$23,251,282
Number of employees in oil and gas production in 1983	26,448

1983 INDUSTRY STATISTICS

Seismic crew months worked 176
Rotary drilling rigs active—*average* 52

Number of wells drilled:

	Wildcat	Development	Total
Oil	79	293	**372**
Gas	74	452	**526**
Dry	357	209	**566**
Service	—	3	**3**
Total	**510**	**957**	**1,467**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	509.0	1,773.6	**2,282.6**
Gas	404.0	2,653.9	**3,057.9**
Dry	1,956.6	1,011.8	**2,968.4**
Service	—	18.1	**18.1**
Total	**2,869.6**	**5,457.4**	**8,327.0**

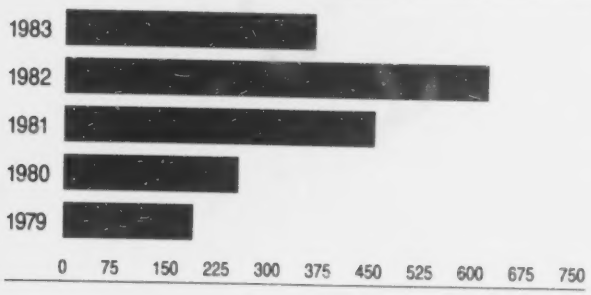
Number of new-field wildcats drilled 297

State-wide rank in:	Crude Oil	Natural Gas
Total wells	13th	8th
Production	15th	9th
Reserves *(1982)*	14th	9th

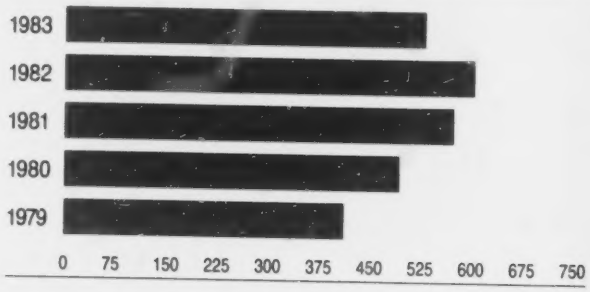
Number of producing wells: *Dec. 31*
Crude oil 4,591
Natural gas and distillate 4,072
Total 8,663
Percentage of wells on artificial lift 93%

Average daily production:
Crude oil—*bbls.* 79,589
NGL—*bbls.* 30,100
Total liquids—*bbls.* 109,689
Natural gas—*Mcf* 460,603

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	52	– 7	**45**
Production	30	11	**41**
Net reserve change	22	– 18	**4**
Proved reserves	169	186	**355**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	– 15	549	**534**
Production	38	173	**211**
Net reserve change	– 53	376	**323**
Proved reserves	206	3,345	**3,551**

Number of producing stripper wells—*Dec. 31* 1,354
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* 2,203,676
Percentage of oil produced by stripper wells 7%
Stripper well reserves: *thous. bbls.*
Primary 7,238
Secondary 6,349
Total **13,587**

Total drilling costs $677,475,562
Cost per well $382,971
Cost per foot $67.70

Note: Represents most currently available data.

STATE ENERGY OFFICE

Colorado Oil and Gas Conservation Commission
1313 Sherman Street
Room 721
Denver, CO 80203
Ph. 303-866-3531

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	67	
With oil and/or gas production	5	
Land area—*acres*	34,657,920	
Productive of oil and/or gas	36,280	
Non-productive of oil and/or gas	5,093,800	
Percentage of acreage leased	15%	
First year of production:		
Crude oil	1943	
Natural gas	1943	
Year and amount of peak production:		
Crude oil—47,536,000 *bbls.*	1978	
Natural gas—51,595 *MMcf*	1978	
Deepest well drilled: *ft.*		
Crude oil	16,130	
Dry hole	18,670	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	255	*28%*
Gas wells	4	*0%*
Dry holes	656	*72%*
Total	**915**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	612	69	681	509
Production	515	52	567	423

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$31.10
Natural gas—*$/Mcf*	$2.51
Wellhead value of 1983 production: *thous.*	
Crude oil	$614,101
Natural gas	$58,819
Crude oil wellhead value all time to 12/31/83—*thous.*	$6,858,150
Rank among principal minerals and percentage of total value:	
Crude oil—1st	32%
Natural gas—4th	3%
Severance and production taxes paid in 1983—*local and state*	$37,986,235
Number of employees in oil and gas production in 1983	1,062

1983 INDUSTRY STATISTICS

Seismic crew months worked 37
Rotary drilling rigs active—*average* 4

Number of wells drilled:

	Wildcat	Development	Total
Oil	1	8	**9**
Gas	0	0	**0**
Dry	13	2	**15**
Service	—	0	**0**
Total	**14**	**10**	**24**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	11.5	116.7	**128.2**
Gas	0	0	**0**
Dry	159.8	27.3	**187.1**
Service	—	0	**0**
Total	**171.3**	**144.0**	**315.3**

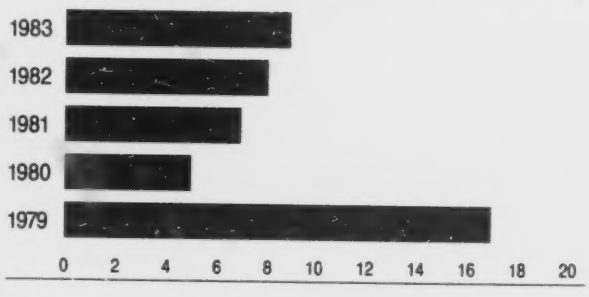
Number of new-field wildcats drilled 14

State-wide rank in:	Crude Oil	Natural Gas
Total wells	29th	Not Applicable
Production	16th	22st
Reserves *(1982)*	18th	21nd

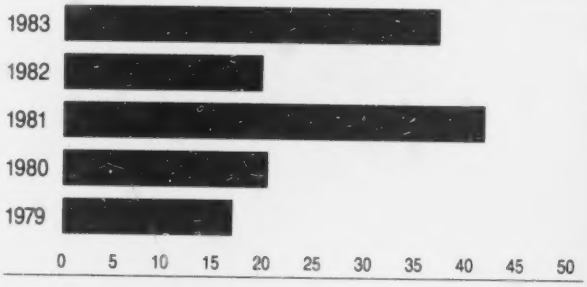
Number of producing wells: *Dec. 31*
Crude oil 137
Natural gas and distillate 0
Total 137
Percentage of wells on artificial lift 55%

Average daily production:
Crude oil—*bbls.* 53,359
NGL—*bbls.* 14,000
Total liquids—*bbls.* 67,359
Natural gas—*Mcf* 64,203

NUMBER OF OIL WELLS DRILLED



SEISMIC CREW MONTHS WORKED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	14	2	**16**
Production	26	5	**31**
Net reserve change	– 12	– 3	**– 15**
Proved reserves	97	17	**114**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	14	0	**14**
Production	27	0	**27**
Net reserve change	- 13	0	**- 13**
Proved reserves	86	0	**86**

Number of producing stripper wells—*Dec. 31* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of oil produced by stripper wells .... Not Applicable
Stripper well reserves: *thous. bbls.*
Primary 0
Secondary 0
Total 0

Total drilling costs $40,423,095
Cost per well $2,021,155
Cost per foot $151.14

Note: Represents most currently available data.

STATE ENERGY OFFICE

Florida Bureau of Geology
Division of Resource Management
903 West Tennessee Street
Tallahasee, FL 32304
Ph. 904-488-4191

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	102	
With oil and/or gas production	46	
Land area—*acres*	35,612,800	
Productive of oil and/or gas	679,000	
Non-productive of oil and/or gas	3,950,000	
Percentage of acreage leased	13%	
First year of production:		
Crude oil	1889	
Natural gas	1882	
Year and amount of peak production:		
Crude oil—147,647,000 *bbls.*	1940	
Natural gas—18,137 *MMcf*	1944	
Deepest well drilled: *ft.*		
Crude oil	5,405	
Dry hole	14,942	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	74,604	*61%*
Gas wells	1,431	*1%*
Dry holes	46,392	*38%*
Total	**122,427**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	3,316	Unavailable	3,316	Unavailable
Production	3,166	Unavailable	3,166	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$29.10
Natural gas—*$/Mcf*	$2.88
Wellhead value of 1983 production: *thous.*	
Crude oil	$849,720
Natural gas	$2,924
Crude oil wellhead value all time to 12/31/83—*thous.*	$11,965,381
Rank among principal minerals and percentage of total value:	
Crude oil—2nd	29.0%
Natural gas—6th	0.1%
Severance and production taxes paid in 1983—*local and state*	Unavailable
Number of employees in oil and gas production in 1983	6,116

1983 INDUSTRY STATISTICS

Seismic crew months worked 11
Rotary drilling rigs active—*average* 61

Number of wells drilled:

	Wildcat	Development	Total
Oil	80	1,380	**1,460**
Gas	4	12	**16**
Dry	555	636	**1,191**
Service	—	86	**86**
Total	**639**	**2,114**	**2,753**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	242.1	3,337.8	**3,579.9**
Gas	1.8	13.2	**15.0**
Dry	1,123.1	1,041.4	**2,764.5**
Service	—	139.3	**139.3**
Total	**1,367.0**	**5,131.7**	**6,498.7**

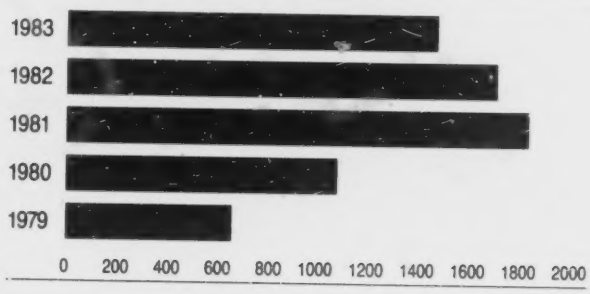
Number of new-field wildcats drilled 281

State-wide rank in:	Crude Oil	Natural Gas
Total wells	8th	23rd
Production	14th	27th
Reserves *(1982)*	15th	Unavailable

Number of producing wells: *Dec. 31*
Crude oil 28,967
Natural gas and distillate 67
Total 29,034
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 80,000
NGL—*bbls.* 20,000
Total liquids—*bbls.* 100,000
Natural gas—*Mcf* 2,781

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED

1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	42	Unavailable	**42**
Production	21	—	**21**
Net reserve change	21	—	**21**
Proved reserves	150	Unavailable	**150**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Number of producing stripper wells—*Dec. 31* 26,813
Number of stripper well abandonments 262
Crude oil stripper production—*thous. bbls.* 23,989,100
Percentage of oil produced by stripper wells 87%
Stripper well reserves: *thous. bbls.*
Primary 54,440
Secondary 66,530
Total **120,970**

Total drilling costs $239,164,565
Cost per well $83,741
Cost per foot $31.18

Note: Represents most currently available data.

STATE ENERGY OFFICE

Illinois Department of Mines and Minerals
704 William G. Stratton Building
Springfield, IL 62706
Ph. 217-782-7756

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	92	
With oil and/or gas production	40	
Land area—*acres*	22,996,480	
Productive of oil and/or gas	7,925,600	
Non-productive of oil and/or gas	1,037,525	
Percentage of acreage leased	39%	
First year of production:		
Crude oil	1889	
Natural gas	1885	
Year and amount of peak production:		
Crude oil—12,823,000 *bbls.*	1953	
Natural gas—2,241 *MMcf*	1936	
Deepest well drilled: *ft.*		
Crude oil	4,508	
Dry hole	7,980	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	37,268	*59%*
Gas wells	2,097	*3%*
Dry holes	23,604	*38%*
Total	**62,969**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	508	Unavailable	508	Unavailable
Production	480	Unavailable	480	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$29.06
Natural gas—*$/Mcf*	$1.84
Wellhead value of 1983 production: *thous.*	
Crude oil	$154,628
Natural gas	$349
Crude oil wellhead value all time to 12/31/83—*thous.*	$1,991,844
Rank among principal minerals and percentage of total value:	
Crude oil—2nd	13.00%
Natural gas—8th	0.03%
Severance and production taxes paid in 1983—*local and state*	$1,578,522
Number of employees in oil and gas production in 1983	934

1983 INDUSTRY STATISTICS

Seismic crew months worked 3
Rotary drilling rigs active—*average* 6

Number of wells drilled:

	Wildcat	Development	Total
Oil	81	338	**419**
Gas	5	17	**22**
Dry	370	181	**551**
Service	—	35	**35**
Total	**456**	**571**	**1,027**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	185.6	615.3	**800.9**
Gas	5.9	19.5	**25.4**
Dry	727.0	298.6	**1,025.6**
Service	—	42.6	**42.6**
Total	**918.5**	**976.0**	**1,894.5**

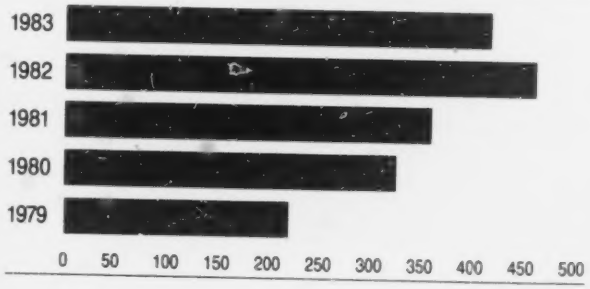
Number of new-field wildcats drilled 124

State-wide rank in:	Crude Oil	Natural Gas
Total wells	12th	21st
Production	22nd	28th
Reserves *(1982)*	24th	Unavailable

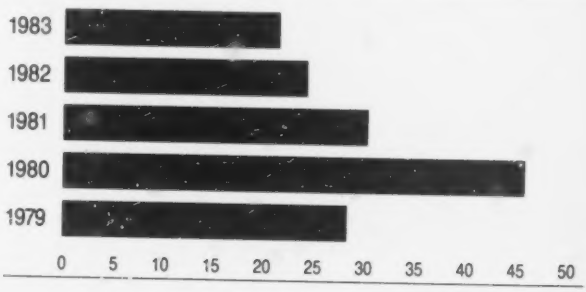
Number of producing wells: *Dec. 31*
Crude oil 6,465
Natural gas and distillate 736
Total 7,201
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 14,578
NGL—*bbls.* 200
Total liquids—*bbls.* 14,778
Natural gas—*Mcf* 521

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	9	Unavailable	**9**
Production	4	—	**4**
Net reserve change	5	—	**5**
Proved reserves	28	Unavailable	**28**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Number of producing stripper wells—*Dec. 31* 5,353
Number of stripper well abandonments 425
Crude oil stripper production—*thous. bbls.* 4,567,883
Percentage of oil produced by stripper wells 98%
Stripper well reserves: *thous. bbls.*
Primary 19,686
Secondary 18,170
Total **37,856**

Total drilling costs $57,603,679
Cost per well $56,921
Cost per foot $29.38

Note: Represents most currently available data.

STATE ENERGY OFFICE

Indiana Department of Natural Resources
Division of Oil and Gas
911 State Office Building
Indianapolis, IN 46204
Ph. 317-232-4055

GAS LOCK AND *FLUID POUND* ELIMINATED!!! BY ATTACHING AXELSON'S "RING VALVE" TO YOUR OIL WELL PUMP!!

Solution To A Gas Lock Problem:

In a **Gas Lock** situation, the hydrostatic weight of the fluid column on the traveling valve effectively keeps it closed as it moves downward through the barrel tube. The gaseous fluid is thus compressed within the barrel tube instead of flowing through the traveling valve into the tubing. Depending on the amount of gas in the fluid, this can mean a well that produces way below expectation, or which has no production at all.

The addition of an Axelson **"Ring Valve"** to your pump eliminates or greatly reduces this **Gas Lock** problem. By keeping the hydrostatic weight of the fluid column **off** the traveling valve on the downstroke, the plunger is allowed to displace the fluid in the barrel tube through the traveling valve and into the chamber between said traveling valve and the **"Ring Valve"**. The upstroke then compresses and displaces this fluid which passes through the **"Ring Valve"** into the tubing. **Result:** A well which produces to expectation!

The Axelson "Roustabout" is shown holding the valve and seat of an Axelson "Ring Valve". The housing assembly and connector can be seen on the foreground.

Solution To A Fluid Pound Problem:

Fluid Pound can occur for a variety of reasons, such as pumping too fast, heavy crude or a gaseous fluid .... all of which result in the **incomplete loading of the pump on the upstroke.** The hydrostatic weight of the fluid column, keeps the traveling valve from opening on the down stroke and the **plunger hits the fluid** in the partially filled barrel tube as a car hits a brick wall. This impact places a terrific and devastating burden on the pump, the rod string and even the pumping jack.

The attachment of the Axelson **"Ring Valve"** is the correct solution to the problem. The **"Ring Valve"**, keeps the hydrostatic weight of the fluid column **off** the traveling valve permitting it to open and displace the fluid as it travels downward into the fluid in the barrel tube. This, in effect, reduces, or totally eliminates, fluid pound. You should also let your Axelson representative check out the well for other conditions that may be the cause of a pump not loading properly.

THE KEY TO PROBLEM SOLVING

The attachment of an Axelson "Ring Valve" to an API pump changes the pump characteristics from one with compression and displacement on the downstroke to one with **compression and displacement on the upstroke** and **displacement only on the downstroke.** This change of compression to displacement on the downstroke is the key to gas lock and fluid pound prevention.

To lower your wells' maintenance costs, write today for more information and for the Axelson sales and service locations nearest you.

Get acquainted with Axelson. The Experts!

A Leader Since 1892

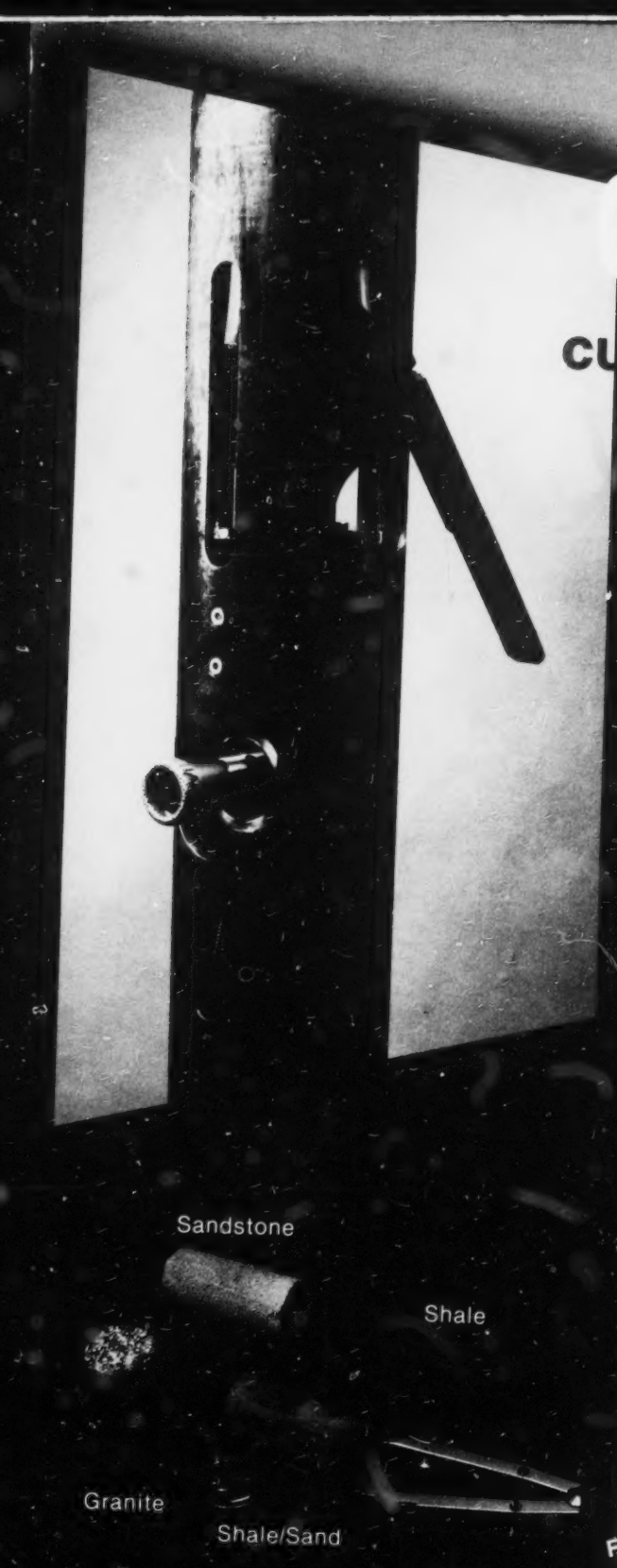
AXELSON

AXELSON, INC., SUBSIDIARY OF U.S. INDUSTRIES, INC.

P.O. BOX 2427 • LONGVIEW, TEXAS 75606
(214) 757-6650 • TELEX 735-440

HARD ROCK CORING TOOL

CUTS UP TO 12 CORE SAMPLES ON A SINGLE RUN



The new Gearhart Hard Rock Coring Tool cuts, retrieves and stores up to 12 core samples on a single run from hard rock formations such as consolidated sandstone, limestone, dolomite and granite. This multiple sampling and the accuracy of Gamma Ray positioning provide samples from exact formations without missed core points.

A diamond bit rotating at nearly 2,000 RPM accurately cuts a 15/16" by 1-3/4" sample in about five minutes without mechanical deformation. The Hard Rock Coring Tool withdraws the bit and sample, stores the sample in a receiver tube and is ready to take the next core.

When the core samples have been cut, retrieved and stored, the tool is extracted from the well bore and the samples removed in sequence for standard lab evaluation.

USES FOR CORE SAMPLES

- verification of mineral composites, porosity and permeability
- measurements of cementation and saturation exponents (m) and (n) for more accurate reservoir fluid volumes
- grain size analysis for facies studies
- determination of mechanical properties for fracture gradient determination
- determination of water saturation and relative permeability measurements

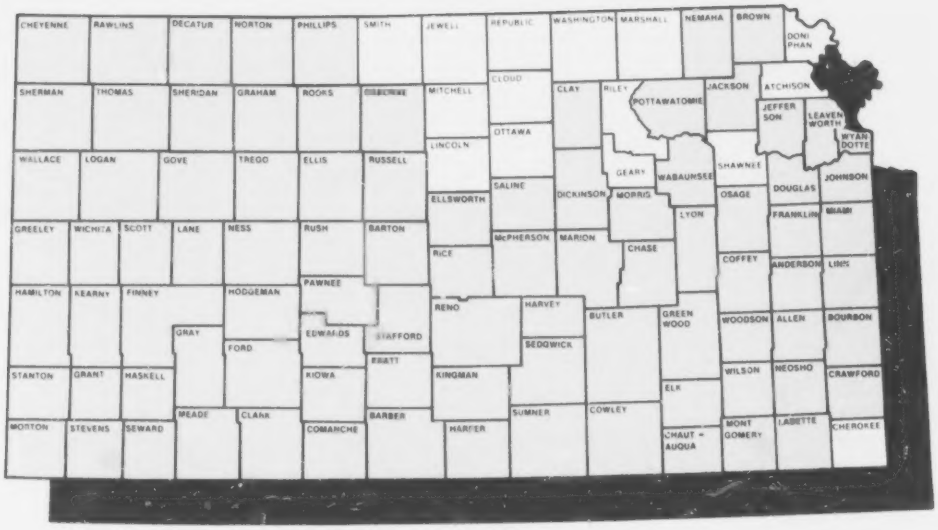
CORING TOOL SPECIFICATIONS

Diameter: 4-7/8"
Length: 17' (with Gamma Ray)
Positioning: Gamma Ray
Capacity: 12 Core Samples
Borehole Diameter: 6-3/4" min. 12-3/4" max. can be equipped with extension for larger boreholes
Temperature: 300° F
Pressure: 20,000 PSI
Cutting: Horizontal

For improved efficiency and accuracy in core sampling, ask for the Gearhart Hard Rock Coring Tool.

GEARHART has arrived

P.O. Box 1936, Fort Worth, TX 76101
(817) 293 1300
Limited Availability



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	105	
With oil and/or gas production	90	
Land area—*acres*	52,337,920	
Productive of oil and/or gas	8,517,133	
Non-productive of oil and/or gas	10,155,000	
Percentage of acreage leased	36%	
First year of production:		
Crude oil	1889	
Natural gas	1882	
Year and amount of peak production:		
Crude oil—124,204,000 *bbls.*	1956	
Natural gas—899,955 *MMcf*	1970	
Deepest well drilled: *ft.*		
Natural gas	6,774	
Dry hole	8,713	
Number of total wells drilled as of 12/31/83:		
(excluding service wells)		
Oil wells	112,827	*52%*
Gas wells	21,224	*10%*
Dry holes	84,626	*38%*
Total	**218,677**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	5,454	982	6,436	37,701
Production	5,076	680	5,756	27,573

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$28.44
Natural gas—*$/Mcf*	$1.59
Wellhead value of 1983 production: *thous.*	
Crude oil	$2,036,133
Natural gas	$696,108
Crude oil wellhead value all time to 12/31/83—*thous.*	$23,010,266
Rank among principal minerals and percentage of total value:	
Crude oil—1st	67%
Natural gas—2nd	23%
Severance and production taxes paid in 1983—*local and state*	$2,265,964
Number of employees in oil and gas production in 1983	15,565

1983 INDUSTRY STATISTICS

Seismic crew months worked 75
Rotary drilling rigs active—*average* 125

Number of wells drilled:

	Wildcat	Development	Total
Oil	278	3,479	**3,757**
Gas	73	416	**489**
Dry	1,208	1,704	**2,912**
Service	—	248	**248**
Total	**1,559**	**5,847**	**7,406**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	1,067.2	8,246.8	**9,314.0**
Gas	292.6	1,212.3	**1,504.9**
Dry	4,573.7	5,629.1	**10,202.8**
Service	—	596.5	**596.5**
Total	**5,933.5**	**15,684.7**	**21,618.2**

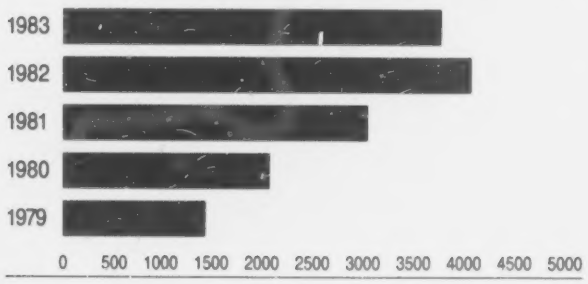
Number of new-field wildcats drilled 319

State-wide rank in:	Crude Oil	Natural Gas
Total wells	3rd	9th
Production	8th	5th
Reserves *(1982)*	8th	7th

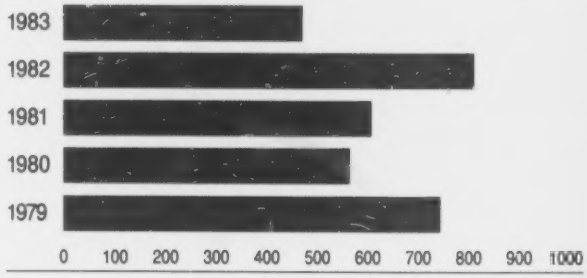
Number of producing wells: *Dec. 31*
Crude oil 49,348
Natural gas and distillate 11,494
Total 60,842
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 196,148
NGL—*bbls.* 38,500
Total liquids—*bbls.* 234,648
Natural gas—*Mcf* 1,199,463

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	70	-93	**-23**
Production	63	14	**77**
Net reserve change	7	-107	**-100**
Proved reserves	378	302	**680**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	-7	151	**144**
Production	20	439	**459**
Net reserve change	-27	-288	**-315**
Proved reserves	112	10,016	**10,128**

Number of producing stripper wells—*Dec. 31* 44,521
Number of stripper well abandonments 1,363
Crude oil stripper production—*thous. bbls.* 47,629,052
Percentage of oil produced by stripper wells 68%
Stripper well reserves: *thous. bbls.*
Primary 202,410
Secondary 108,990
Total **311,400**

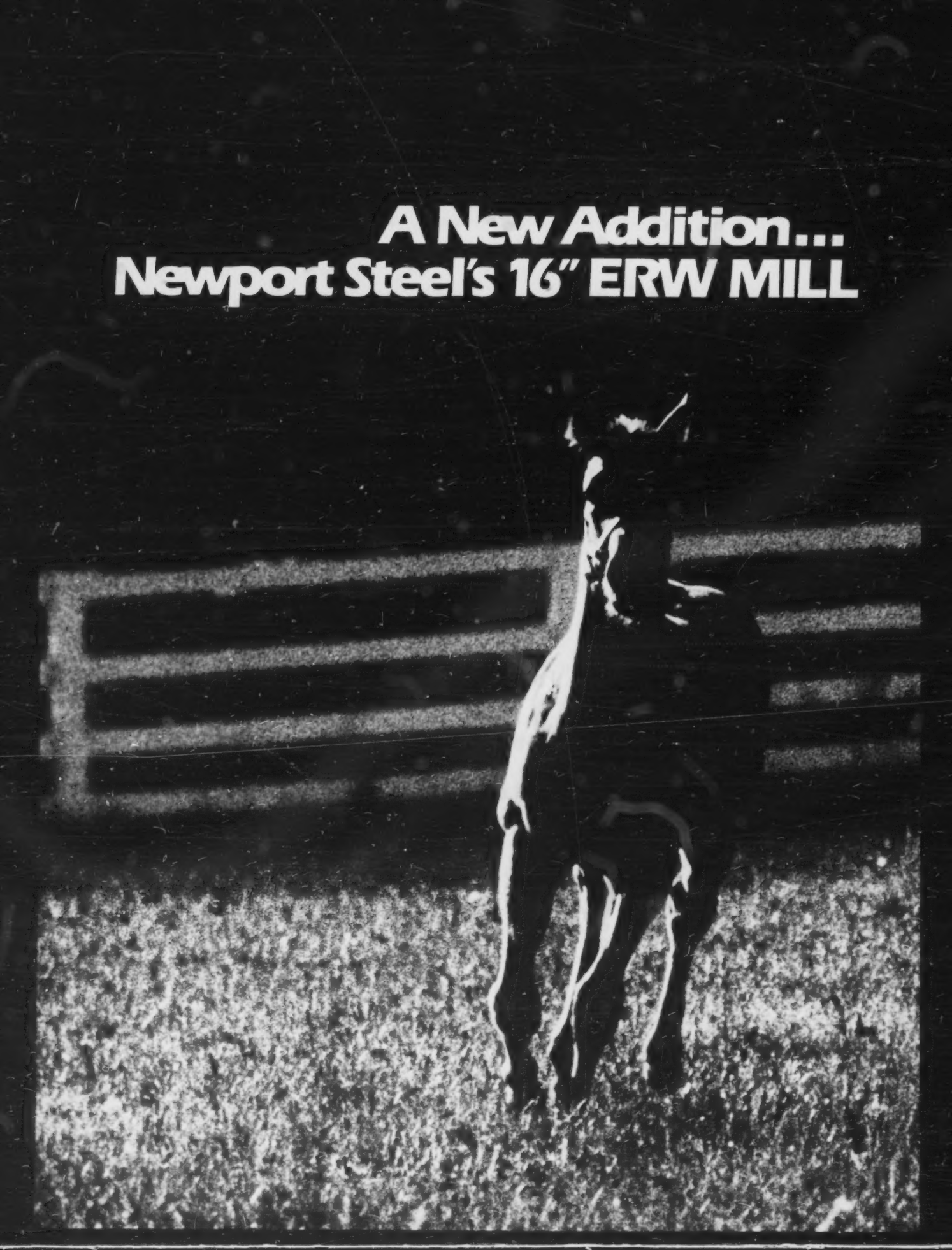
Total drilling costs $781,034,042
Cost per well $101,870
Cost per foot $31.44

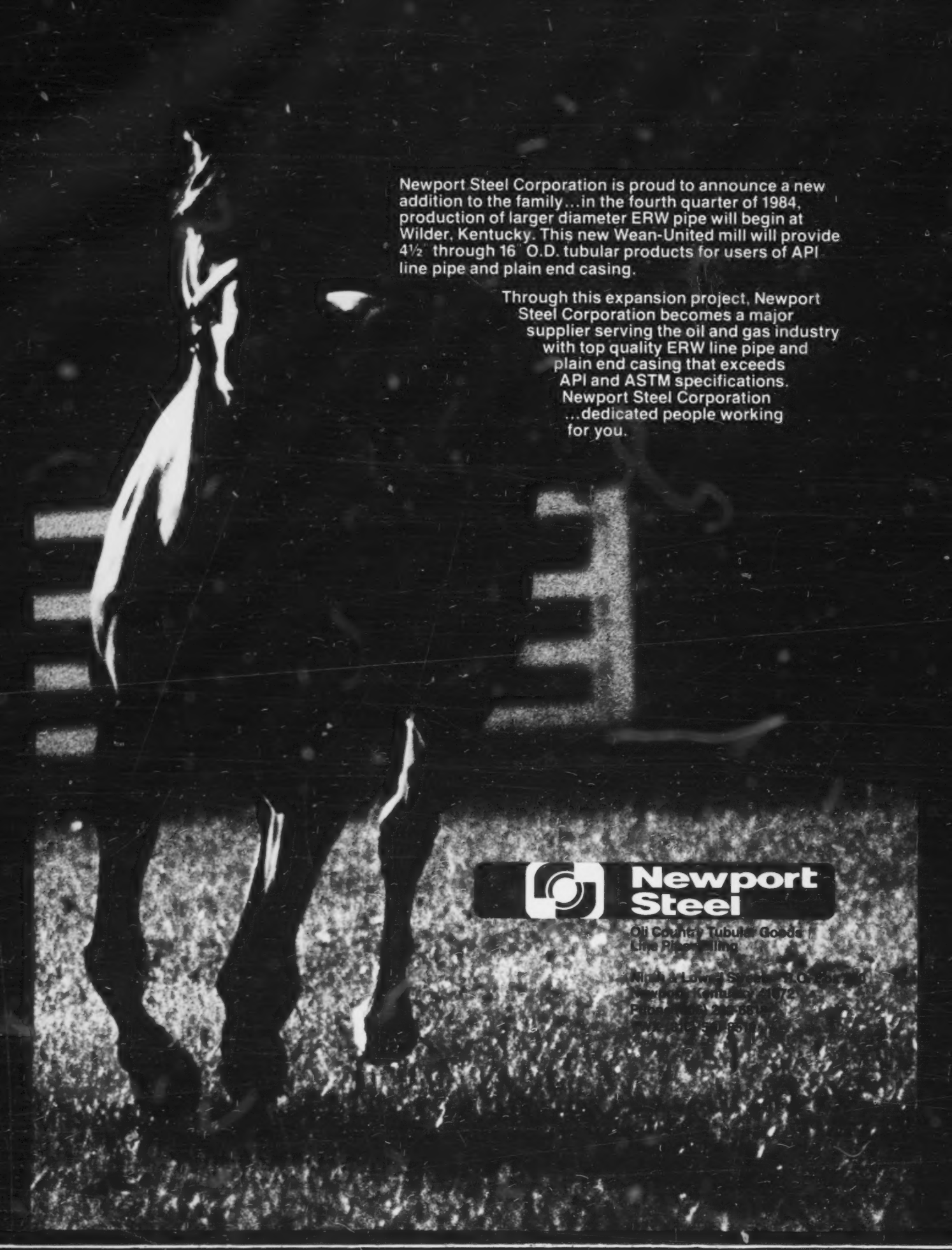
Note: Represents most currently available data.

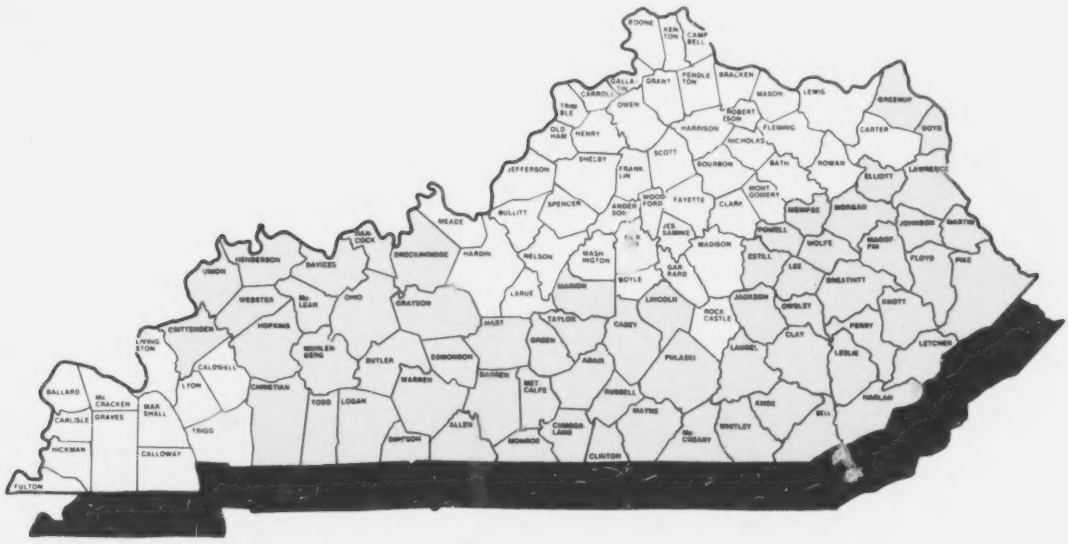
STATE ENERGY OFFICE

Kansas Corporation Commission
200 Colorado Derby
202 West 1st Street
Wichita, KS 67202
Ph. 316-263-3238

A New Addition...
Newport Steel's 16" ERW MILL




Newport Steel Corporation is proud to announce a new addition to the family...in the fourth quarter of 1984, production of larger diameter ERW pipe will begin at Wilder, Kentucky. This new Wean-United mill will provide 4½ through 16 O.D. tubular products for users of API line pipe and plain end casing.
Through this expansion project, Newport Steel Corporation becomes a major supplier serving the oil and gas industry with top quality ERW line pipe and plain end casing that exceeds API and ASTM specifications. Newport Steel Corporation ...dedicated people working for you.
Newport Steel
Oil Country Tubular Goods
Line Pipe Rolling



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	120	
With oil and/or gas production	64	
Land area—*acres*	25,388,160	
Productive of oil and/or gas	1,025,000	
Non-productive of oil and/or gas	4,500,000	
Percentage of acreage leased	22%	
First year of production:		
Crude oil	1860	
Natural gas	1888	
Year and amount of peak production:		
Crude oil—27,272,000 *bbls.*	1959	
Natural gas—96,459 *MMcf*	1947	
Deepest well drilled: *ft.*		
Crude oil	7,598	
Dry hole	15,200	
Number of total wells drilled as of 12/31/83:		
(excluding service wells)		
Oil wells	48,751	*52%*
Gas wells	10,071	*11%*
Dry holes	34,878	*37%*
Total	**93,700**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	703	145	848	4,178
Production	667	110	777	3,586

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$32.50
Natural gas—*$/Mcf*	$1.63
Wellhead value of 1983 production: *thous.*	
Crude oil	$256,295
Natural gas	$75,633
Crude oil wellhead value all time to 12/31/83—*thous.*	$15,319,778
Rank among principal minerals and percentage of total value:	
Crude oil—2nd	5%
Natural gas—4th	2%
Severance and production taxes paid in 1983—*local and state*	$14,282,975
Number of employees in oil and gas production in 1983	3,409

1983 INDUSTRY STATISTICS

Seismic crew months worked 24
Rotary drilling rigs active—*average* 8

Number of wells drilled:

	Wildcat	Development	Total
Oil	165	1,133	**1,298**
Gas	44	159	**203**
Dry	764	882	**1,646**
Service	—	131	**131**
Total	**973**	**2,305**	**3,278**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	267.4	1,410.3	**1,677.7**
Gas	76.3	376.5	**452.8**
Dry	1,128.5	1,210.9	**2,339.4**
Service	—	137.3	**137.3**
Total	**1,472.2**	**3,135.0**	**4,607.2**

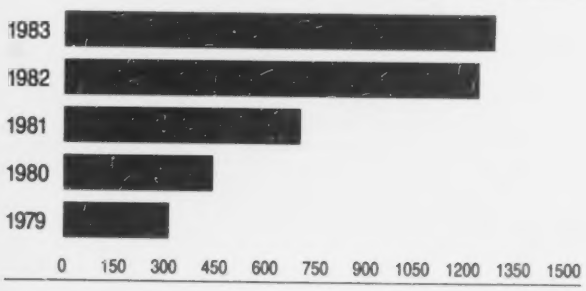
Number of new-field wildcats drilled 206

State-wide rank in:	Crude Oil	Natural Gas
Total wells	9th	12th
Production	20th	20th
Reserves *(1982)*	22nd	19th

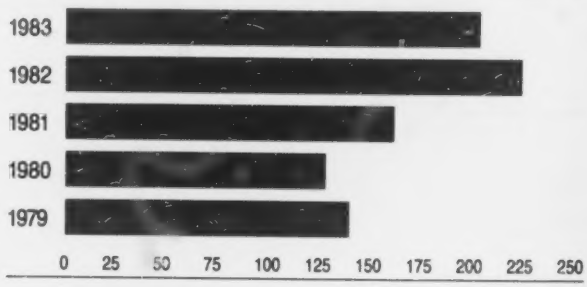
Number of producing wells: *Dec. 31*
Crude oil 15,562
Natural gas and distillate 8,234
Total 23,796
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 21,606
NGL—*bbls.* 8,100
Total liquids—*bbls.* 29,706
Natural gas—*Mcf* 127,137

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	12	13	**25**
Production	5	3	**8**
Net reserve change	7	10	**17**
Proved reserves	36	35	**71**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	0	79	**79**
Production	2	46	**48**
Net reserve change	-2	33	**31**
Proved reserves	12	580	**592**

Number of producing stripper wells—*Dec. 31* 14,275
Number of stripper well abandonments 256
Crude oil stripper production—*thous. bbls.* 5,143,571
Percentage of oil produced by stripper wells 70%
Stripper well reserves: *thous. bbls.*
Primary 11,150
Secondary 19,000
Total **30,150**

Total drilling costs $140,949,811
Cost per well $51,013
Cost per foot $34.77

Note: Represents most currently available data.

STATE ENERGY OFFICE

Kentucky Department of Mines and Minerals
Oil and Gas Division
P.O. Box 690
Lexington, KY 40586
Ph. 606-257-3812

"Investing in your own production equipment can be a merry-go-round... and round... with your capital."

Allan Fullerton
Division Manager
Halliburton Resource Management
Oklahoma City, Oklahoma

"We've seen it happen a lot. A company will invest a small fortune in production equipment, planning for one capacity. Then their production rates change... and they find themselves with their capital tied up in the wrong size equipment, needing more money for the right size and to keep on drilling. It's a vicious circle.

"When we show them how HRM's rental service for production equipment can keep them flexible, so they can change equipment as their production needs change, they kick themselves for not coming to us in the first place. They pay a simple monthly rental fee that keeps their capital flexible, for more drilling or whatever. And, as we've been saying for years, the rental equipment fees go on the books as a *pre-tax* expense item."

There are many ways Halliburton Resource Management can get you off the merry-go-round. We provide an engineering staff well qualified to suggest the right production equipment. Those suggestions are based on both technical needs *and* economic considerations to help make sure you get the most efficiency for your well—initially and when production rates change.

And our customers have found that in addition to freed capital and pre-tax expense advantages, HRM actually *saved* them money over capital equipment ownership costs.

We can normally provide on a monthly rental basis, pumping units, prime movers, separators, treaters, storage equipment, dehydrators, waterflood and disposal equipment, and other major equipment required for your project. It's all available from huge inventories, so we can meet almost any need, almost immediately.

HRM also offers compression equipment and services on a straight rental basis or with a lease/purchase option. And gas processing and conditioning facilities are available on a service-fee basis.

We can show you how we help free your capital so you can drill more wells. Just contact us at the address listed below.

We help you conserve capital for what you do best.

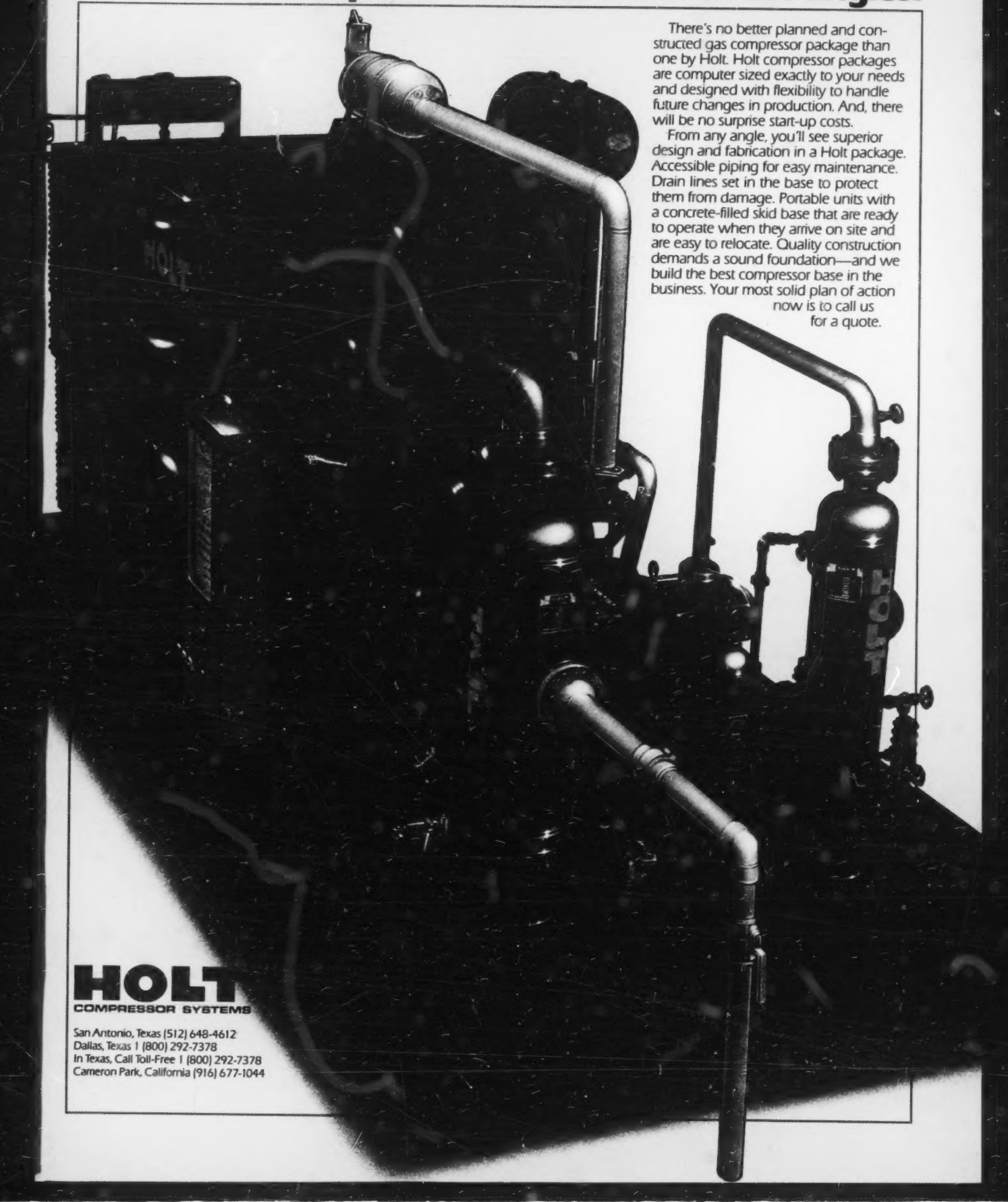
HRM

Halliburton Resource Management

A Halliburton Company

1400 Fidelity Union Tower
P.O. Box 1411, Dallas, Texas 75221
Phone (214) 748-7291

Holt plans ahead to cover all the angles.



There's no better planned and constructed gas compressor package than one by Holt. Holt compressor packages are computer sized exactly to your needs and designed with flexibility to handle future changes in production. And, there will be no surprise start-up costs.

From any angle, you'll see superior design and fabrication in a Holt package. Accessible piping for easy maintenance. Drain lines set in the base to protect them from damage. Portable units with a concrete-filled skid base that are ready to operate when they arrive on site and are easy to relocate. Quality construction demands a sound foundation—and we build the best compressor base in the business. Your most solid plan of action now is to call us for a quote.

HOLT
COMPRESSOR SYSTEMS

San Antonio, Texas (512) 648-4612
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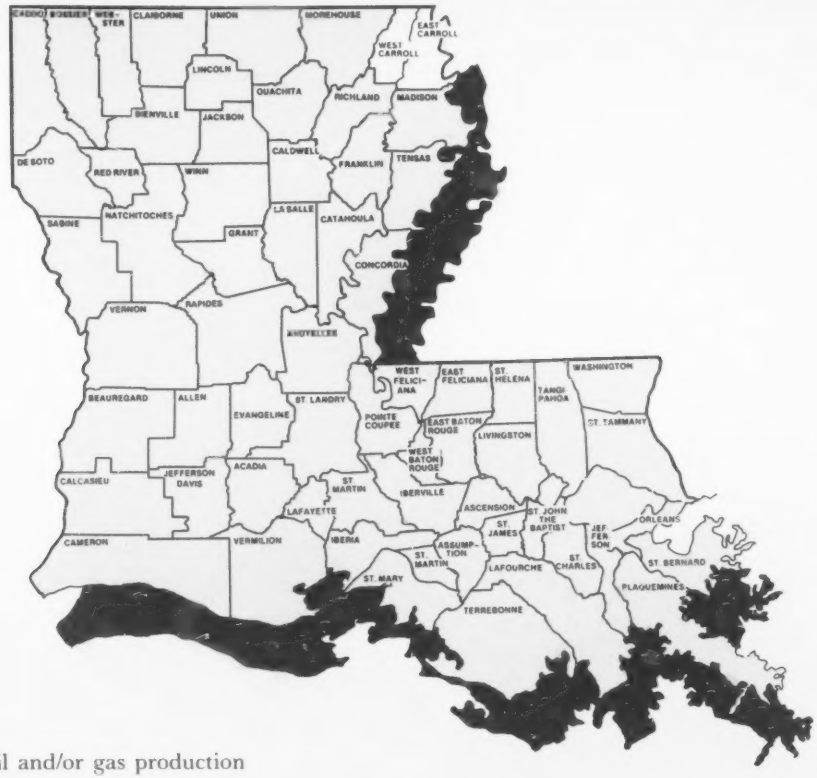
Cameron Park, California (916) 677-1044



☐ Parishes with oil and/or gas production

HISTORICAL INFORMATION

Number of parishes	64	
With oil and/or gas production	62	
Land area—*acres*	28,493,440	
Productive of oil and/or gas	6,997,000	
Non-productive of oil and/or gas	6,675,466	
Percentage of acreage leased	48%	
First year of production:		
Crude oil	1902	
Natural gas	1905	
Year and amount of peak production:		
Crude oil—935,243,000 *bbls.*	1971	
Natural gas—8,242,423 *MMcf*	1973	
Deepest well drilled: *ft.*		
Natural gas	21,862	
Dry hole	25,600	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	76,132	*46%*
Gas wells	27,847	*17%*
Dry holes	62,175	*37%*
Total	**166,154**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
	(mill. bbls.)			
Reserves	24,090	3,326	27,416	217,710
Production	21,362	2,031	23,393	171,811

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$30.02
Natural gas—*$/Mcf*	$2.91
Wellhead value of 1983 production: *thous.*	
Crude oil	$14,396,661
Natural gas	$15,380,276
Crude oil wellhead value all time to 12/31/83—*thous.*	$122,951,397
Rank among principal minerals and percentage of total value:	
Crude oil—2nd	48%
Natural gas—1st	51%
Severance and production taxes paid in 1983—*local and state*	$859,930,363
Number of employees in oil and gas production in 1983	79,200

1983 INDUSTRY STATISTICS

Seismic crew months worked 423
Rotary drilling rigs active—*average* 282

Number of wells drilled:

	Wildcat	Development	Total
Oil	15	1,765	**1,780**
Gas	19	878	**897**
Dry	540	1,279	**1,819**
Service	—	79	**79**
Total	**574**	**4,001**	**4,575**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	169.5	7,831.1	**8,000.6**
Gas	203.2	5,974.4	**6,177.6**
Dry	4,817.3	9,532.3	**14,349.6**
Service	—	189.6	**189.6**
Total	**5,190.0**	**23,527.4**	**28,717.4**

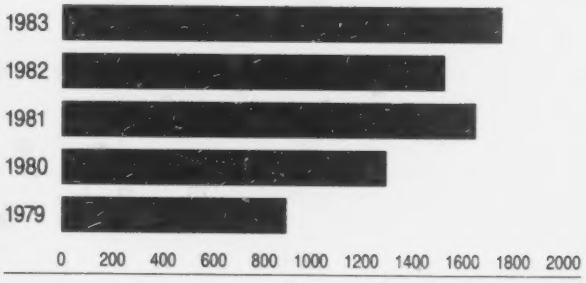
Number of new-field wildcats drilled 533

State-wide rank in:	Crude Oil	Natural Gas
Total wells	6th	6th
Production	3rd	2nd
Reserves *(1982)*	4th	2nd

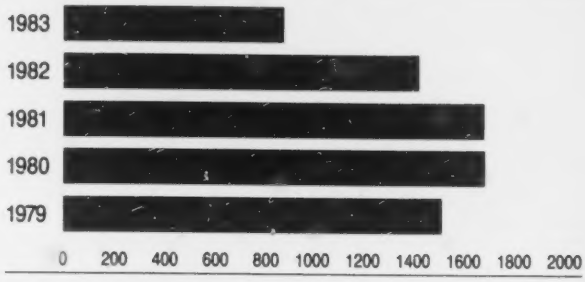
Number of producing wells: *Dec. 31*
Crude oil 23,376
Natural gas and distillate 13,894
Total 37,270
Percentage of wells on artificial lift 91%

Average daily production:
Crude oil—*bbls.* 1,313,888
NGL—*bbls.* 450,000
Total liquids—*bbls.* 1,763,888
Natural gas—*Mcf* 14,487,888

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	131	133	**264**
Production	388	165	**553**
Net reserve change	– 257	– 32	**– 289**
Proved reserves	2,728	1,295	**4,023**

Natural gas reserve position. *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	– 397	4,084	**3,687**
Production	701	5,535	**6,236**
Net reserve change	– 1,098	– 1,451	**– 2,549**
Proved reserves	8,137	37,762	**45,899**

Number of producing stripper wells—*Dec. 31* 12,010
Number of stripper well abandonments 160
Crude oil stripper production—*thous. bbls.* 9,171,973
Percentage of oil produced by stripper wells 5%
Stripper well reserves: *thous. bbls.*
Primary 54,154
Secondary 46,132
Total **100,286**

Total drilling costs $7,550,104,937
Cost per well $1,143,348
Cost per foot $212.72

Note: Represents most currently available data.

STATE ENERGY OFFICE

Louisiana Department of Natural Resources
P.O. Box 44396
Capitol Station
Baton Rouge, LA 70804
Ph. 504-342-4500

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	23	
With oil and/or gas production	1	
Land area—*acres*	6,295,680	
Productive of oil and/or gas	14,200	
Non-productive of oil and/or gas	510,000	
Percentage of acreage leased	8	
First year of production:		
Crude oil	Not Applicable	
Natural gas	1943	
Year and amount of peak production:		
Crude oil	Not Applicable	
Natural gas—4,649 *MMcf*	1957	
Deepest well drilled: *ft.*		
Natural gas	8,658	
Dry hole	11,617	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	0	*0%*
Gas wells	72	*61%*
Dry holes	47	*39%*
Total	**119**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	0	Unavailable	—	Unavailable
Production	0	Unavailable	—	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	Not Applicable
Natural gas—*$/Mcf*	$.98
Wellhead value of 1983 production: *thous.*	
Crude oil	Not Applicable
Natural gas	$25
Crude oil wellhead value all time to 12/31/83—*thous.*	Not Applicable
Rank among principal minerals and percentage of total value:	
Crude oil	Not Applicable
Natural gas	Unavailable
Severance and production taxes paid in 1983—*local and state*	$1,417
Number of employees in oil and gas production in 1983	0

1983 INDUSTRY STATISTICS

Seismic crew months worked ..... Unavailable
Rotary drilling rigs active—*average* ..... Unavailable

Number of wells drilled:

	Wildcat	Development	Total
Oil	0	0	**0**
Gas	0	0	**0**
Dry	2	0	**2**
Service	—	0	**0**
Total	**2**	**0**	**2**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	0	0	**0**
Gas	0	0	**0**
Dry	12.8	0	**12.8**
Service	—	0	**0**
Total	**12.8**	**0**	**12.8**

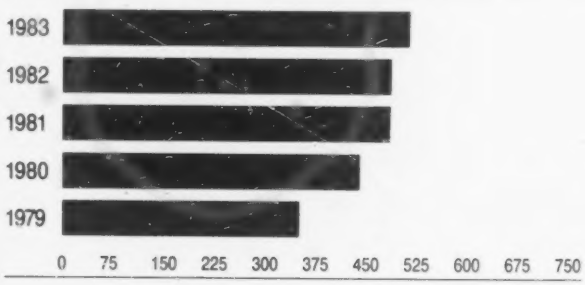
Number of new-field wildcats drilled 1

State-wide rank in:	Crude Oil	Natural Gas
Total wells	Not Applicable	Not Applicable
Production	Not Applicable	30th
Reserves *(1982)*	Not Applicable	Unavailable

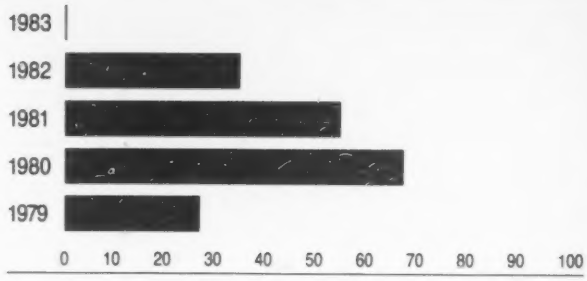
Number of producing wells: *Dec. 31*
Crude oil 0
Natural gas and distillate 0
Total 0
Percentage of wells on artificial lift ..... Not Applicable

Average daily production:
Crude oil—*bbls.* 0
NGL—*bbls.* 150
Total liquids—*bbls.* 150
Natural gas—*Mcf* 69

ACREAGE UNDER LEASE *(thous. acres)*



NATURAL GAS PRODUCTION *(MMcf)*



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	0	Unavailable	—
Production	0	—	—
Net reserve change	—	—	—
Proved reserves	0	Unavailable	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Number of producing stripper wells—*Dec. 31* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of oil produced by stripper wells .... Not Applicable
Stripper well reserves: *thous. bbls.*
Primary 0
Secondary 0
Total **0**

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Maryland Geological Survey
The Rotunda
711 West 40th Street
Baltimore, MD 21211
Ph. 301-338-7084

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	83	
With oil and/or gas production	59	
Land area—*acres*	36,450,560	
Productive of oil and/or gas	608,720	
Non-productive of oil and/or gas	13,968,000	
Percentage of acreage leased	40%	
First year of production:		
Crude oil	1889	
Natural gas	1909	
Year and amount of peak production:		
Crude oil—34,862,000 *bbls.*	1979	
Natural gas—159,731 *MMcf*	1979	
Deepest well drilled: *ft.*		
Natural gas	10,695	
Dry hole	17,466	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	13,342	*40%*
Gas wells	2,613	*8%*
Dry holes	17,512	*52%*
Total	**33,467**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	1,083	181	1,264	1,815
Production	899	84	983	615

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$31.75
Natural gas—*$/Mcf*	$3.24
Wellhead value of 1983 production: *thous.*	
Crude oil	$1,007,618
Natural gas	$440,935
Crude oil wellhead value all time to 12/31/83—*thous.*	$7,364,015
Rank among principal minerals and percentage of total value:	
Crude oil—1st	41%
Natural gas—2nd	18%
Severance and production taxes paid in 1983—*local and state*	$80,352,430
Number of employees in oil and gas production in 1983	4,117

1983 INDUSTRY STATISTICS

Seismic crew months worked 160
Rotary drilling rigs active—*average* 29

Number of wells drilled:

	Wildcat	Development	Total
Oil	45	306	**351**
Gas	16	31	**47**
Dry	262	151	**413**
Service	—	12	**12**
Total	**323**	**500**	823

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	177.9	1,150.0	**1,327.9**
Gas	64.6	99.3	**163.9**
Dry	1,147.3	587.7	**1,735.0**
Service	—	37.9	**37.9**
Total	**1,389.8**	**1,874.9**	3,264.7

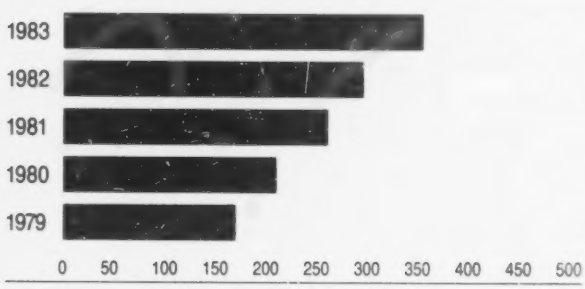
Number of new-field wildcats drilled 323

State-wide rank in:	Crude Oil	Natural Gas
Total wells	14th	20th
Production	10th	11th
Reserves *(1982)*	12th	15th

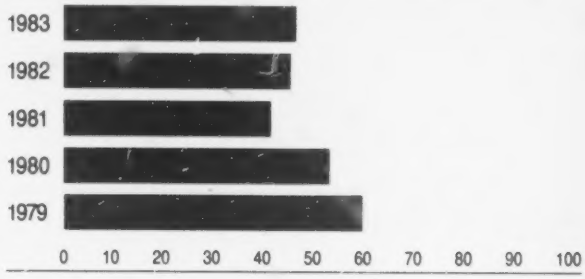
Number of producing wells: *Dec. 31*
Crude oil 4,913
Natural gas and distillate 539
Total 5,452
Percentage of wells on artificial lift 87%

Average daily production:
Crude oil—*bbls.* 86,948
NGL—*bbls.* 32,000
Total liquids—*bbls.* 118,948
Natural gas—*Mcf* 372,852

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	– 27	7	**– 20**
Production	29	12	**41**
Net reserve change	– 56	– 5	**– 61**
Proved reserves	184	97	**281**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	28	68	**96**
Production	67	81	**148**
Net reserve change	– 39	– 13	**– 52**
Proved reserves	719	481	**1,200**

Number of producing stripper wells—*Dec. 31* 3,361
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* 2,820,134
Percentage of oil produced by stripper wells 9%
Stripper well reserves: *thous. bbls.*
Primary 19,082
Secondary 32,495
Total **51,577**

Total drilling costs $282,518,553
Cost per well $331,984
Cost per foot $73.28

Note: Represents most currently available data.

STATE ENERGY OFFICE

Michigan Geological Survey
Department of Natural Resources
P.O. Box 30028
Lansing, MI 48909
Ph. 517-373-1256

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	82	
With oil and/or gas production	44	
Land area—*acres*	30,229,120	
Productive of oil and/or gas	629,140	
Non-productive of oil and/or gas	10,849,760	
Percentage of acreage leased	38%	
First year of production:		
Crude oil	1889	
Natural gas	1923	
Year and amount of peak production:		
Crude oil—65,119,000 *bbls.*	1970	
Natural gas—211,371 *MMcf*	1981	
Deepest well drilled: *ft.*		
Natural gas	21,727	
Dry hole	25,460	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	7,069	*33%*
Gas wells	1,191	*5%*
Dry holes	13,449	*62%*
Total	**21,709**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	2,220	113	2,333	7,820
Production	1,997	95	2,092	6,017

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$26.76
Natural gas—*$/Mcf*	$4.06
Wellhead value of 1983 production: *thous.*	
Crude oil	$841,736
Natural gas	$611,574
Crude oil wellhead value all time to 12/31/83—*thous.*	$9,298,298
Rank among principal minerals and percentage of total value:	
Crude oil—1st	55%
Natural gas—2nd	40%
Severance and production taxes paid in 1983—*local and state*	$99,158,664
Number of employees in oil and gas production in 1983	8,100

1983 INDUSTRY STATISTICS

Seismic crew months worked 124
Rotary drilling rigs active—*average* 33

Number of wells drilled:

	Wildcat	Development	Total
Oil	23	116	**139**
Gas	6	46	**52**
Dry	237	145	**382**
Service	—	0	**0**
Total	**266**	**307**	**573**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	204.0	897.9	**1,101.9**
Gas	44.9	496.3	**541.2**
Dry	1,933.4	1,102.9	**3,036.3**
Service	—	0	**0**
Total	**2,182.3**	**2,497.1**	**4,679.4**

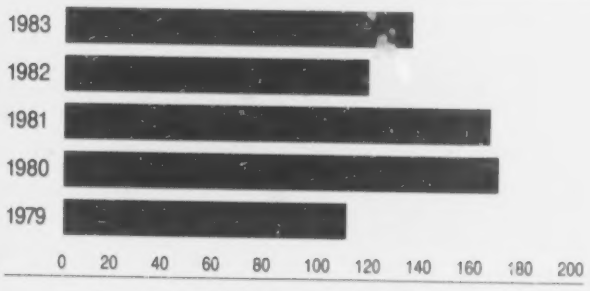
Number of new-field wildcats drilled 266

State-wide rank in:	Crude Oil	Natural Gas
Total wells	22nd	19th
Production	11th	10th
Reserves *(1982)*	10th	13th

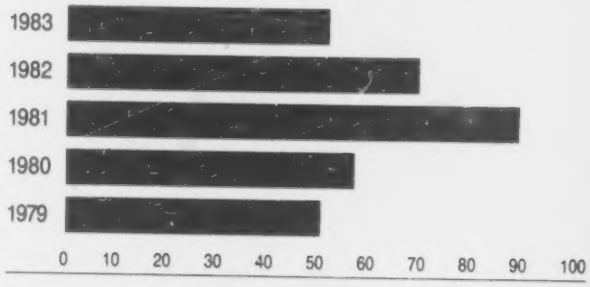
Number of producing wells: *Dec. 31*
Crude oil 2,727
Natural gas and distillate 525
Total 3,252
Percentage of wells on artificial lift 95%

Average daily production:
Crude oil—*bbls.* 86,178
NGL—*bbls.* 8,000
Total liquids—*bbls.* 94,178
Natural gas—*Mcf* 412,696

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	44	3	**47**
Production	30	3	**33**
Net reserve change	14	0	**14**
Proved reserves	223	18	**241**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	22	-62	**-40**
Production	14	185	**199**
Net reserve change	8	-247	**-239**
Proved reserves	74	1,729	**1,803**

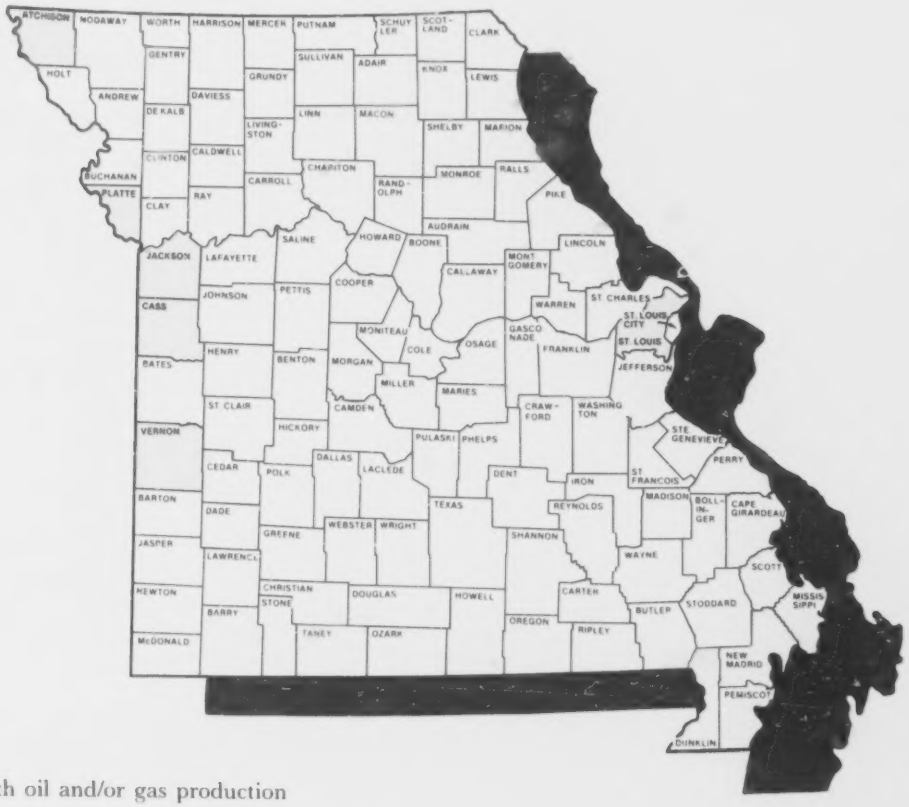
Number of producing stripper wells—*Dec. 31* 1,923
Number of stripper well abandonments 82
Crude oil stripper production—*thous. bbls.* 2,236,532
Percentage of oil produced by stripper wells 7%
Stripper well reserves: *thous. bbls.*
Primary 17,390
Secondary 3,026
Total **20,416**

Total drilling costs $604,126,091
Cost per well $1,018,762
Cost per foot $113.24

Note: Represents most currently available data.

STATE ENERGY OFFICE

Mississippi State Oil and Gas Board
P.O. Box 1332
Jackson, MS 39205
Ph. 601-359-1231



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	114	
With oil and/or gas production	6	
Land area—*acres*	44,124,800	
Productive of oil and/or gas	12,900	
Non-productive of oil and/or gas	700,000	
Percentage of acreage leased	2%	
First year of production:		
Crude oil	1888	
Natural gas	1887	
Year and amount of peak production:		
Crude oil—269,000 *bbls.*	1983	
Natural gas—1,369 *MMcf*	1938	
Deepest well drilled: *ft.*		
Crude oil	2,975	
Dry hole	4,906	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	685	*36%*
Gas wells	195	*10%*
Dry holes	1,009	*54%*
Total	**1,889**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$31.20
Natural gas—*$/Mcf*	Not Applicable
Wellhead value of 1983 production. *thous.*	
Crude oil	$8,393
Natural gas	Not Applicable
Crude oil wellhead value all time to 12/31/83—*thous.*	$34,153
Rank among principal minerals and percentage of total value:	
Crude oil—10th	1%
Natural gas	Not Applicable
Severance and production taxes paid in 1983—*local and state*	Unavailable
Number of employees in oil and gas production in 1983	165

1983 INDUSTRY STATISTICS

Seismic crew months worked ..... Unavailable
Rotary drilling rigs active—*average* ..... Unavailable

Number of wells drilled:

	Wildcat	Development	Total
Oil	13	93	**106**
Gas	0	2	**2**
Dry	37	23	**60**
Service	—	116	**116**
Total	**50**	**234**	**284**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	7.5	40.5	**48.0**
Gas	0	1.0	**1.0**
Dry	20.2	10.6	**30.8**
Service	—	24.4	**24.4**
Total	**27.7**	**76.5**	**104.2**

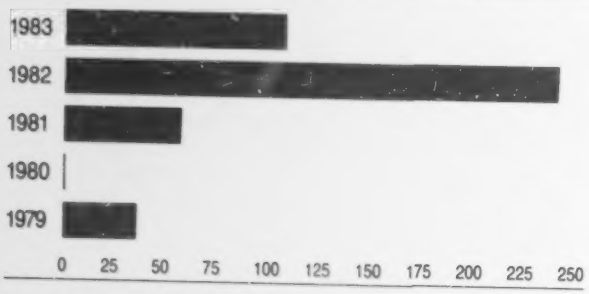
Number of new-field wildcats drilled 5

State-wide rank in:	Crude Oil	Natural Gas
Total wells	24th	26th
Production	29th	32nd
Reserves *(1982)*	Unavailable	Unavailable

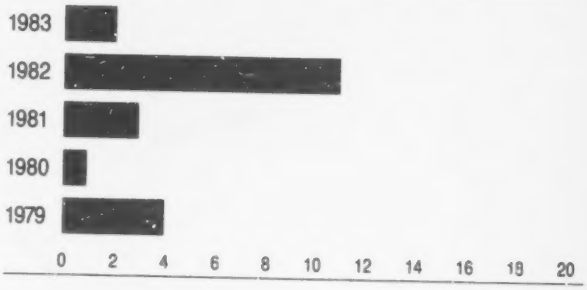
Number of producing wells: *Dec. 31*
Crude oil 552
Natural gas and distillate 0
Total 552
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 737
NGL—*bbls.* 0
Total liquids—*bbls.* 737
Natural gas—*Mcf* 0

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net reserve change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	0	0	**0**
Production	0	0	**0**
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

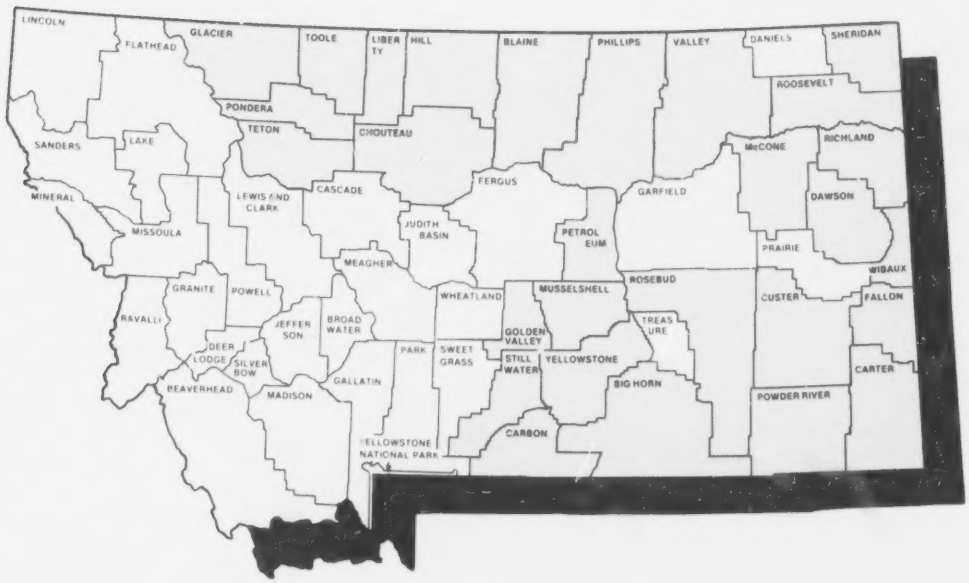
Number of producing stripper wells—*Dec. 31* 530
Number of stripper well abandonments 61
Crude oil stripper production—*thous. bbls.* 52,450
Percentage of oil produced by stripper wells 26%
Stripper well reserves: *thous. bbls.*
Primary 46
Secondary 170
Total **216**

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Missouri Department of Conservation
Oil and Gas Division
P.O. Box 65
Blue Springs, MO 64015
Ph. 816-228-3766



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	56	
With oil and/or gas production	28	
Land area—*acres*	93,048,320	
Productive of oil and/or gas	1,054,400	
Non-productive of oil and/or gas	42,995,800	
Percentage of acreage leased	47%	
First year of production:		
Crude oil	1916	
Natural gas	1915	
Year and amount of peak production:		
Crude oil—48,460,000 *bbls.*	1968	
Natural gas—56,565 *MMcf*	1981	
Deepest well drilled: *ft.*		
Crude oil	13,012	
Dry hole	17,379	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	9,929	*37%*
Gas wells	4,070	*15%*
Dry holes	13,057	*48%*
Total	**27,056**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	1,325	45	1,370	2,810
Production	1,109	27	1,136	1,940

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$28.80
Natural gas—*$/Mcf*	$2.24
Wellhead value of 1983 production: *thous.*	
Crude oil	$841,680
Natural gas	$116,308
Crude oil wellhead value all time to 12/31/83—*thous.*	$7,062,090
Rank among principal minerals and percentage of total value:	
Crude oil—1st	53%
Natural gas—3rd	60%
Severance and production taxes paid in 1983—*local and state*	$44,236,569
Number of employees in oil and gas production in 1983	3,760

1983 INDUSTRY STATISTICS

Seismic crew months worked 156
Rotary drilling rigs active—*average* 24

Number of wells drilled:

	Wildcat	Development	Total
Oil	28	158	**186**
Gas	11	110	**121**
Dry	152	106	**258**
Service	—	5	**5**
Total	**191**	**379**	**570**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	258.0	669.0	**927.0**
Gas	26.5	204.0	**230.5**
Dry	882.3	334.6	**1,216.9**
Service	—	13.9	**13.9**
Total	**1,166.8**	**1,221.5**	**2,388.3**

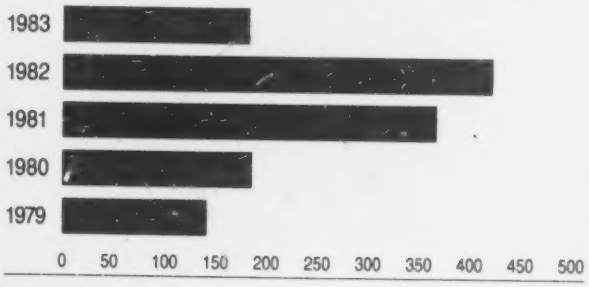
Number of new-field wildcats drilled 145

State-wide rank in:	Crude Oil	Natural Gas
Total wells	19th	16th
Production	13th	19th
Reserves *(1982)*	11th	17th

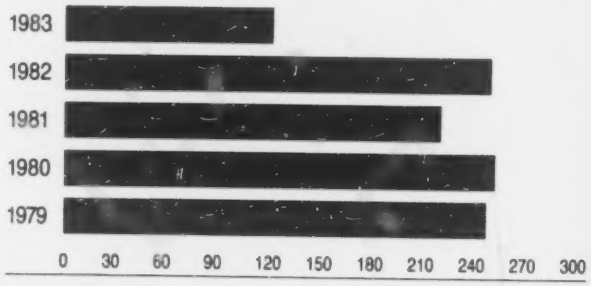
Number of producing wells: *Dec. 31*
Crude oil 4,675
Natural gas and distillate 2,043
Total 6,718
Percentage of wells on artificial lift 91%

Average daily production:
Crude oil—*bbls.* 80,069
NGL—*bbls.* 2,600
Total liquids—*bbls.* 82,669
Natural gas—*Mcf* 142,386

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	62	8	**70**
Production	32	1	**33**
Net reserve change	30	7	**37**
Proved reserves	216	18	**234**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	2	–422	**–420**
Production	10	36	**46**
Net reserve change	–8	–458	**–466**
Proved reserves	81	789	**870**

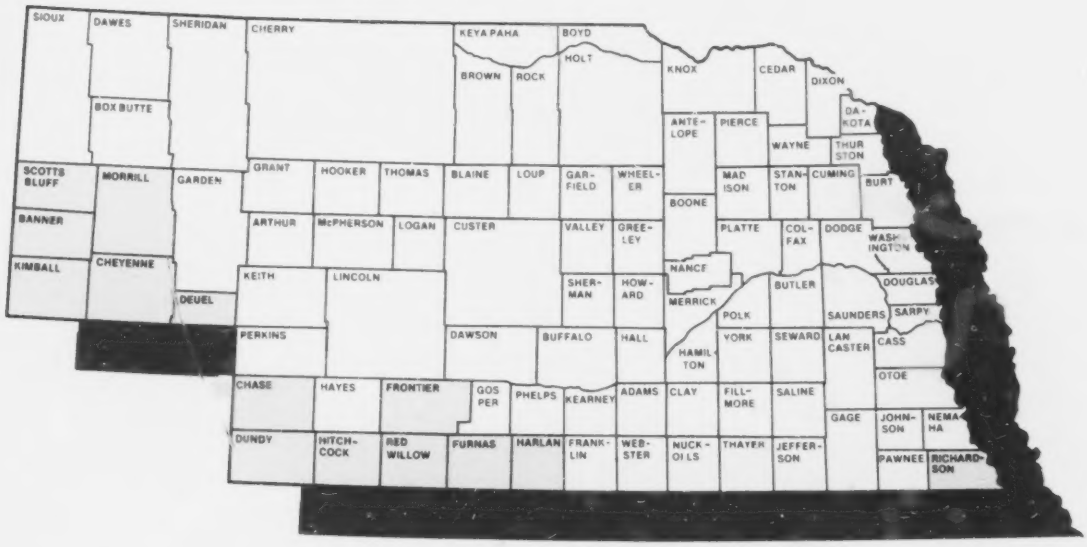
Number of producing stripper wells—*Dec. 31* 2,243
Number of stripper well abandonments 55
Crude oil stripper production—*thous. bbls.* 2,880,991
Percentage of oil produced by stripper wells 9%
Stripper well reserves: *thous. bbls.*
Primary 25,884
Secondary 750
Total **26,634**

Total drilling costs $377,115,272
Cost per well $471,394
Cost per foot $96.53

Note: Represents most currently available data.

STATE ENERGY OFFICE

Montana Dept. of Natural Resources and Conservation
Board of Oil and Gas
P.O. Box 217
Helena, MT 59624
Ph. 406-449-2611



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	93	
With oil and/or gas production	14	
Land area—*acres*	49,052,160	
Productive of oil and/or gas	326,080	
Non-productive of oil and/or gas	13,085,000	
Percentage of acreage leased	27%	
First year of production:		
Crude oil	1939	
Natural gas	1949	
Year and amount of peak production:		
Crude oil—24,894,000 *bbls.*	1962	
Natural gas—15,743 *MMcf*	1961	
Deepest well drilled: *ft.*		
Crude oil	7,438	
Dry hole	9,971	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	4,988	*31%*
Gas wells	207	*1%*
Dry holes	11,117	*68%*
Total	**16,312**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	439	Unavailable	439	Unavailable
Production	407	Unavailable	407	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$28.58
Natural gas--*$/Mcf*	$2.17
Wellhead value of 1983 production: *thous.*	
Crude oil	$182,340
Natural gas	$2,637
Crude oil wellhead value all time to 12/31/83—*thous.*	$2,145,788
Rank among principal minerals and percentage of total value:	
Crude oil—1st	69%
Natural gas—4th	1%
Severance and production taxes paid in 1983—*local and state*	$4,325,191
Number of employees in oil and gas production in 1983	223

1983 INDUSTRY STATISTICS

Seismic crew months worked 14
Rotary drilling rigs active—*average* 9

Number of wells drilled:

	Wildcat	Development	Total
Oil	23	106	**129**
Gas	16	1	**17**
Dry	134	74	**208**
Service	—	1	**1**
Total	**173**	**182**	**355**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	120.5	477.6	**598.1**
Gas	51.4	6.5	**57.9**
Dry	687.9	366.8	**1,054.7**
Service	—	5.0	**5.0**
Total	**859.8**	**855.9**	**1,715.7**

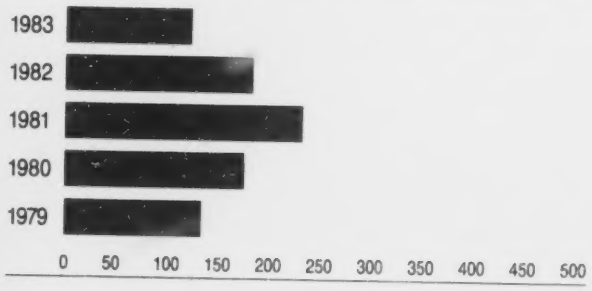
Number of new-field wildcats drilled 171

State-wide rank in:	Crude Oil	Natural Gas
Total wells	23rd	22nd
Production	21st	26th
Reserves *(1982)*	23rd	Unavailable

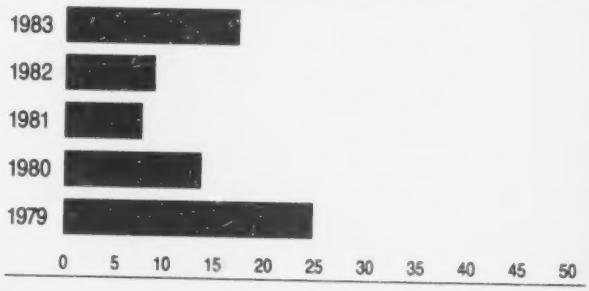
Number of producing wells: *Dec. 31*
Crude oil 2,100
Natural gas and distillate 24
Total 2,124
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 17,480
NGL—*bbls.* 250
Total liquids—*bbls.* 17,730
Natural gas—*Mcf* 3,329

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	– 4	Unavailable	**– 4**
Production	5	—	**5**
Net reserve change	– 9	—	**– 9**
Proved reserves	32	Unavailable	**32**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

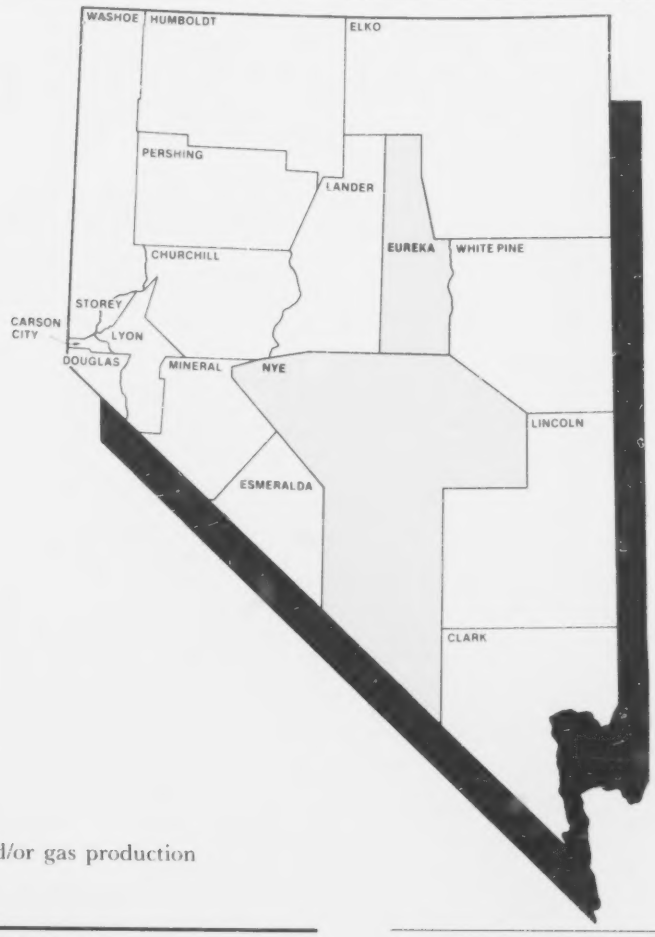
Number of producing stripper wells—*Dec. 31* 1,585
Number of stripper well abandonments 15
Crude oil stripper production—*thous. bbls.* 2,878,602
Percentage of oil produced by stripper wells 52%
Stripper well reserves: *thous. bbls.*
Primary 7,828
Secondary 2,538
Total **10,366**

Total drilling costs $57,911,981
Cost per well $141,941
Cost per foot $31.11

Note: Represents most currently available data.

STATE ENERGY OFFICE

Nebraska Oil and Gas Conservation Commission
P.O. Box 399
Sidney, NB 69162
Ph. 308-254-4595



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	16	
With oil and/or gas production	2	
Land area—*acres*	70,332,160	
Productive of oil and/or gas	4,800	
Non-productive of oil and/or gas	29,848,000	
Percentage of acreage leased	43%	
First year of production:		
Crude oil	1954	
Natural gas	Not Applicable	
Year and amount of peak production:		
Crude oil—1,235,000 *bbls.*	1979	
Natural gas	Not Applicable	
Deepest well drilled: *ft.*		
Crude oil	8,581	
Dry hole	19,562	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	35	*12%*
Gas wells	1	*0%*
Dry holes	255	*88%*
Total	**291**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$23.80
Natural gas—*$/Mcf*	Not Applicable
Wellhead value of 1983 production: *thous.*	
Crude oil	$19,278
Natural gas	Not Applicable
Crude oil wellhead value all time to 12/31/83—*thous.*	$110,901
Rank among principal minerals and percentage of total value:	
Crude oil—4th	4%
Natural gas	Not Applicable
Severance and production taxes paid in 1983—*local and state*	$25,242
Number of employees in oil and gas production in 1983	313

1983 INDUSTRY STATISTICS

Seismic crew months worked 39
Rotary drilling rigs active—*average* 1

Number of wells drilled:

	Wildcat	Development	Total
Oil	2	0	**2**
Gas	0	0	**0**
Dry	7	0	**7**
Service	—	0	**0**
Total	**9**	**0**	**9**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	12.4	0	**12.4**
Gas	0	0	**0**
Dry	61.5	0	**61.5**
Service	—	0	**0**
Total	**73.9**	**0**	**73.9**

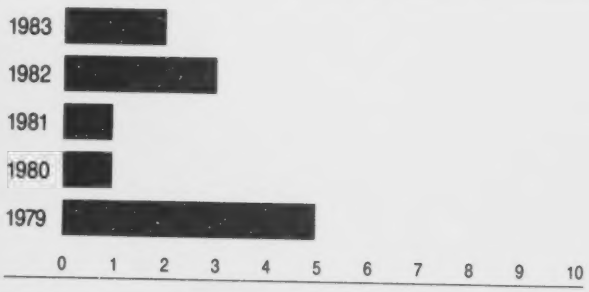
Number of new-field wildcats drilled 8

State-wide rank in:	Crude Oil	Natural Gas
Total wells	30th	Not Applicable
Production	28th	Not Applicable
Reserves *(1982)*	Unavailable	Not Applicable

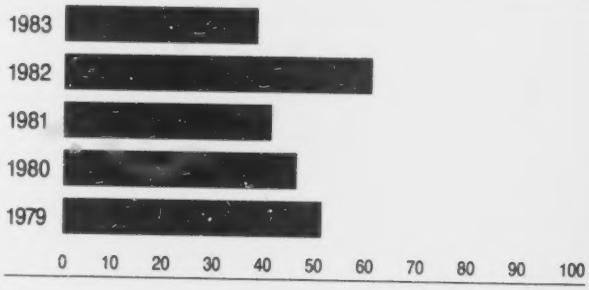
Number of producing wells: *Dec. 31*
Crude oil 0
Natural gas and distillate 0
Total 0
Percentage of wells on artificial lift ..... Not Applicable

Average daily production:
Crude oil—*bbls.* 2,219
NGL—*bbls.* 0
Total liquids—*bbls.* 2,219
Natural gas—*Mcf* 0

NUMBER OF OIL WELLS DRILLED



SEISMIC CREW MONTHS WORKED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net reserve change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	0	0	**0**
Production	0	0	**0**
Net reserve change	—	—	—
Proved reserves	0	0	**0**

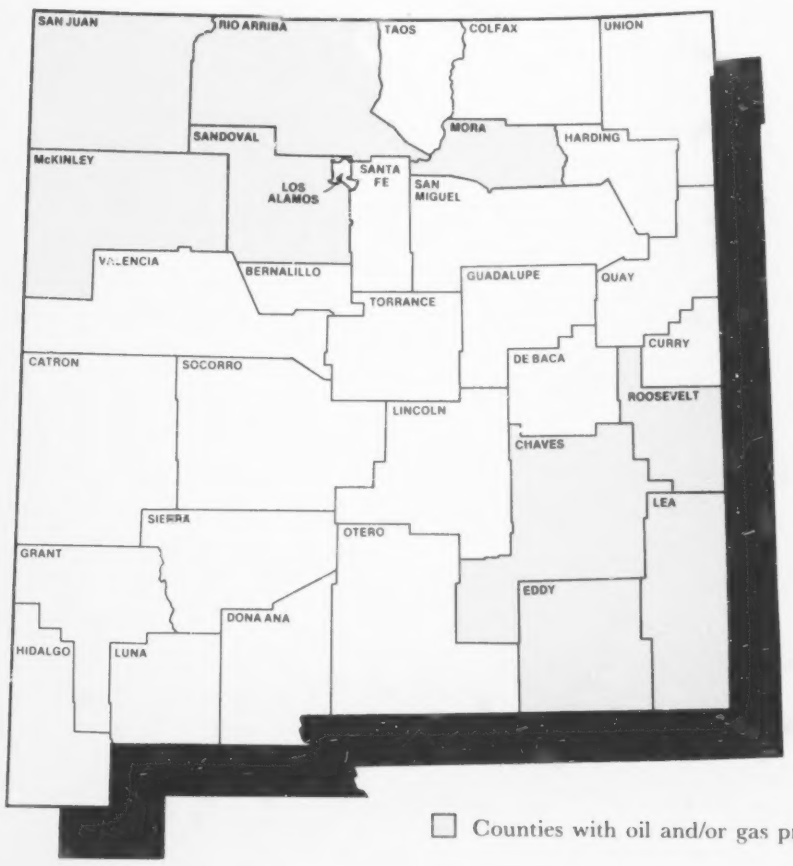
Number of producing stripper wells—*Dec. 31* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of oil produced by stripper wells .... Not Applicable
Stripper well reserves: *thous. bbls.*
Primary 0
Secondary 0
Total **0**

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Nevada Department of Minerals
400 West King Street
Suite 106
Carson City, NV 89710
Ph. 702-885-4368



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	32	
With oil and/or gas production	9	
Land area—*acres*	77,654,400	
Productive of oil and/or gas	3,725,280	
Non-productive of oil and/or gas	38,799,600	
Percentage of acreage leased	55%	
First year of production:		
Crude oil	1911	
Natural gas	1924	
Year and amount of peak production:		
Crude oil—129,227,000 *bbls.*	1969	
Natural gas—1,244,779 *MMcf*	1974	
Deepest well drilled: *ft.*		
Natural gas	17,544	
Dry hole	22,926	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	27,605	*49%*
Gas wells	16,581	*30%*
Dry holes	11,911	*21%*
Total	**56,097**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	5,523	1,590	7,113	47,552
Production	4,960	1,059	6,019	34,470

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$29.26
Natural gas—*$/Mcf*	$2.67
Wellhead value of 1983 production: *thous.*	
Crude oil	$2,199,445
Natural gas	$2,374,970
Crude oil wellhead value all time to 12/31/83—*thous.*	$19,305,389
Rank among principal minerals and percentage of total value:	
Crude oil—1st	41%
Natural gas—2nd	44%
Severance and production taxes paid in 1983—*local and state*	$347,547,609
Number of employees in oil and gas production in 1983	12,988

Compiled by IPAA — September 1984

1983 INDUSTRY STATISTICS

Seismic crew months worked 116
Rotary drilling rigs active—*average* 65

Number of wells drilled:

	Wildcat	Development	Total
Oil	34	674	**708**
Gas	46	501	**547**
Dry	138	165	**303**
Service	—	43	**43**
Total	**218**	**1,383**	**1,601**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	233.8	3,508.3	**3,742.1**
Gas	414.9	3,021.5	**3,436.4**
Dry	706.1	908.2	**1,614.3**
Service	—	143.7	**143.7**
Total	**1,354.8**	**7,581.7**	**8,936.5**

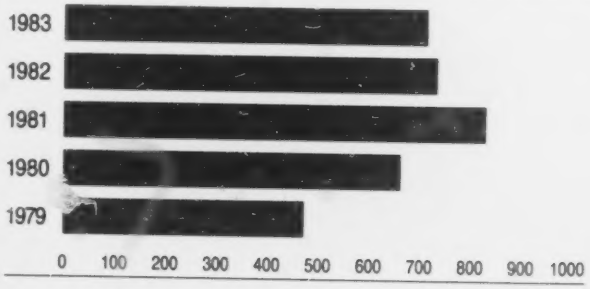
Number of new-field wildcats drilled 130

State-wide rank in:	Crude Oil	Natural Gas
Total wells	10th	7th
Production	7th	4th
Reserves *(1982)*	7th	5th

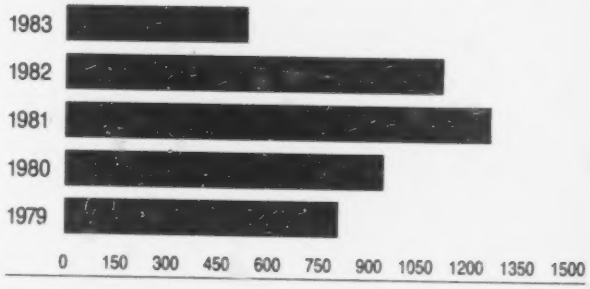
Number of producing wells: *Dec. 31*
Crude oil 17,409
Natural gas and distillate 16,214
Total 33,623
Percentage of wells on artificial lift 82%

Average daily production:
Crude oil—*bbls.* 205,943
NGL—*bbls.* 125,000
Total liquids—*bbls.* 330,943
Natural gas—*Mcf* 2,436,992

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	77	131	**208**
Production	69	46	**115**
Net reserve change	8	85	**93**
Proved reserves	563	531	**1,094**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	71	-549	**-478**
Production	200	802	**1,002**
Net reserve change	-129	-1,351	**-1,480**
Proved reserves	1,520	11,562	**13,082**

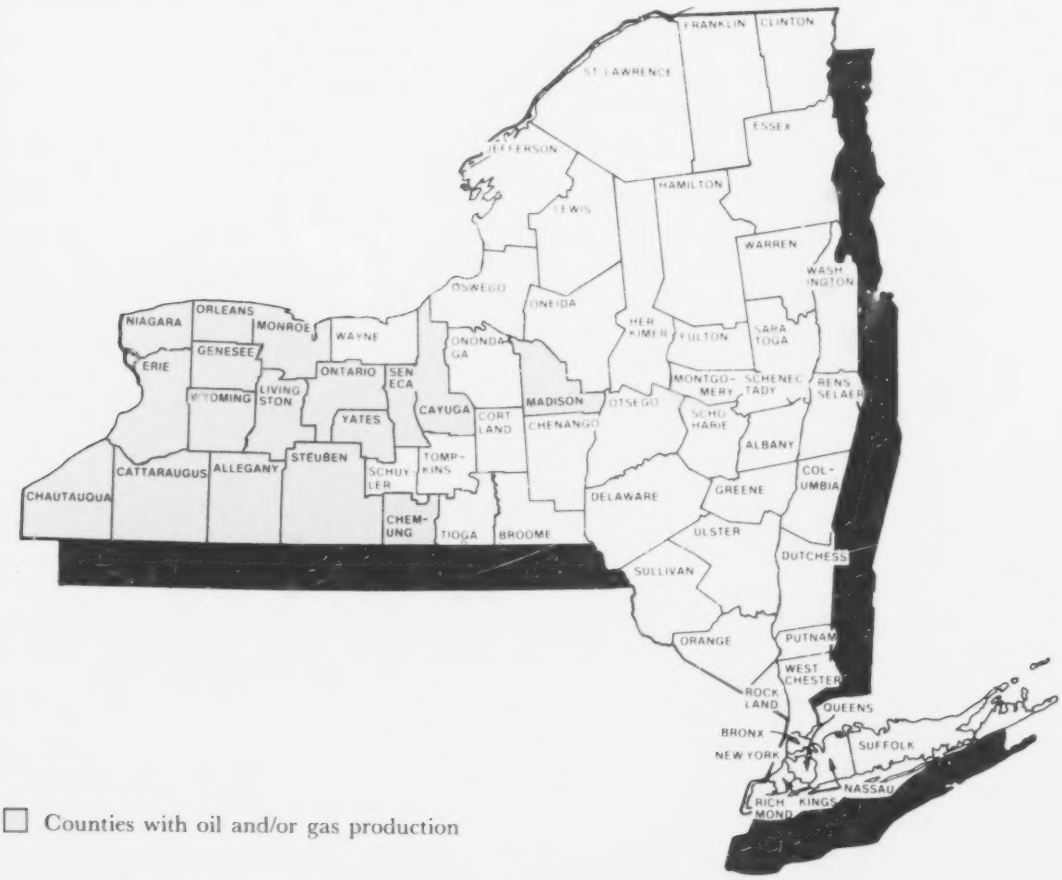
Number of producing stripper wells—*Dec. 31* 13,882
Number of stripper well abandonments 621
Crude oil stripper production—*thous. bbls.* 14,207,219
Percentage of oil produced by stripper wells 21%
Stripper well reserves: *thous. bbls.*
Primary 84,538
Secondary 36,532
Total **121,070**

Total drilling costs $1,173,027,494
Cost per well $585,928
Cost per foot $101.50

Note: Represents most currently available data.

STATE ENERGY OFFICE

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501
Ph. 505-827-5800



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties		62
With oil and/or gas production		17
Land area—*acres*		30,321,280
Productive of oil and/or gas		2,000,000
Non-productive of oil and/or gas		3,900,000
Percentage of acreage leased		20%
First year of production:		
Crude oil		1865
Natural gas		1885
Year and amount of peak production:		
Crude oil—6,685,000 *bbls.*		1882
Natural gas—39,402 *MMcf*		1938
Deepest well drilled: *ft.*		
Natural gas		5,425
Dry hole		13,560
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	9,051	*67%*
Gas wells	3,507	*26%*
Dry holes	1,007	*7%*
Total	**13,565**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	0	—	835
Production	Unavailable	0	—	606

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$32.50
Natural gas—*$/Mcf*	$3.91
Wellhead value of 1983 production: *thous.*	
Crude oil	$27,008
Natural gas	$52,394
Crude oil wellhead value all time to 12/31/83—*thous.*	$929,316
Rank among principal minerals and percentage of total value:	
Crude oil—6th	5%
Natural gas—3rd	9%
Severance and production taxes paid in 1983—*local and state*	Unavailable
Number of employees in oil and gas production in 1983	2,680

1983 INDUSTRY STATISTICS

Seismic crew months worked 7
Rotary drilling rigs active—*average* 10

Number of wells drilled:

	Wildcat	Development	Total
Oil	2	48	50
Gas	39	385	424
Dry	2	6	8
Service	—	1	1
Total	43	440	483

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	5.6	76.6	82.2
Gas	141.0	1,362.9	1,503.9
Dry	8.2	23.3	31.5
Service	—	2.9	2.9
Total	154.8	1,465.7	1,620.5

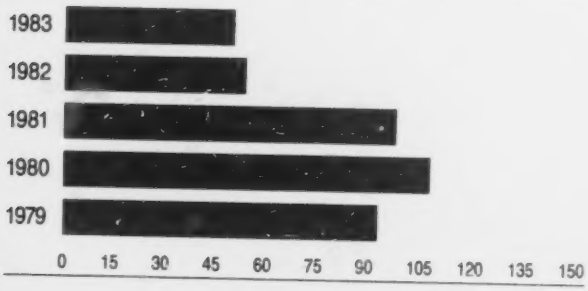
Number of new-field wildcats drilled 7

State-wide rank in:	Crude Oil	Natural Gas
Total wells	25th	19th
Production	27th	22nd
Reserves *(1982)*	Unavailable	20th

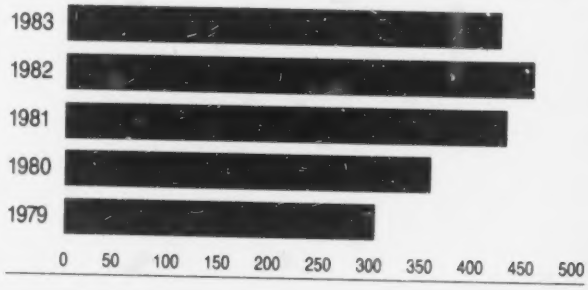
Number of producing wells: *Dec. 31*
Crude oil 5,432
Natural gas and distillate 2,969
Total 8,401
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 2,277
NGL—*bbls.* 0
Total liquids—*bbls.* 2,277
Natural gas—*Mcf* 36,712

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	Unavailable	—
Production	—	0	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	1	-27	-26
Production	0	9	9
Net reserve change	1	-36	-35
Proved reserves	3	226	229

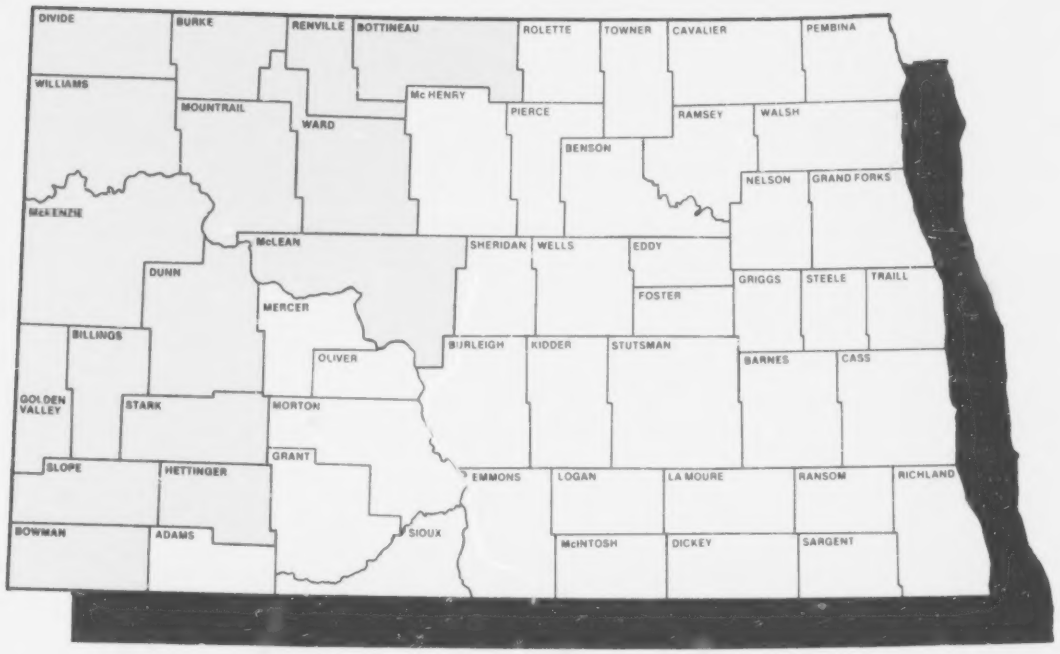
Number of producing stripper wells—*Dec. 31* 5,259
Number of stripper well abandonments 249
Crude oil stripper production—*thous. bbls.* 719,000
Percentage of oil produced by stripper wells 86%
Stripper well reserves: *thous. bbls.*
Primary 1,400
Secondary 7,339
Total 8,739

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

New York Energy Office
Department of Oil and Gas
2 Rockefeller Plaza
Albany, NY 12223
Ph. 518-473-4888



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	53	
With oil and/or gas production	16	
Land area—*acres*	44,352,000	
Productive of oil and/or gas	617,120	
Non-productive of oil and/or gas	22,682,700	
Percentage of acreage leased	53%	
First year of production:		
Crude oil	1951	
Natural gas	1907	
Year and amount of peak production:		
Crude oil—50,690,000 *bbls.*	1983	
Natural gas—70,267 *MMcf*	1983	
Deepest well drilled: *ft.*		
Natural gas	14,636	
Dry hole	15,380	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	4,725	*50%*
Gas wells	93	*1%*
Dry holes	4,559	*49%*
Total	**9,377**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	917	142	1,059	1,707
Production	680	71	751	1,011

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$29.27
Natural gas—*$/Mcf*	$2.37
Wellhead value of 1983 production: *thous.*	
Crude oil	$1,483,696
Natural gas	$166,533
Crude oil wellhead value all time to 12/31/83—*thous.*	$8,044,352
Rank among principal minerals and percentage of total value:	
Crude oil—1st	81%
Natural gas—2nd	9%
Severance and production taxes paid in 1983—*local and state*	$79,655,787
Number of employees in oil and gas production in 1983	5,387

1983 INDUSTRY STATISTICS

Seismic crew months worked 114
Rotary drilling rigs active—*average* 42

Number of wells drilled:

	Wildcat	Development	Total
Oil	80	246	**326**
Gas	3	7	**10**
Dry	122	78	**200**
Service	—	1	**1**
Total	**205**	**332**	**537**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	876.9	2,242.0	**3,118.9**
Gas	42.7	63.7	**106.4**
Dry	988.0	659.4	**1,647.4**
Service	—	8.0	**8.0**
Total	**1,907.6**	**2,973.1**	**4,880.7**

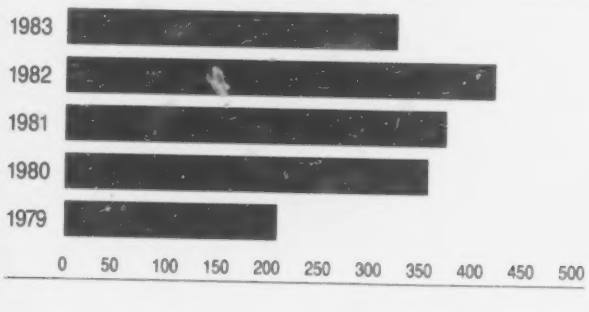
Number of new-field wildcats drilled 110

State-wide rank in:	Crude Oil	Natural Gas
Total wells	15th	25th
Production	9th	18th
Reserves *(1982)*	9th	18th

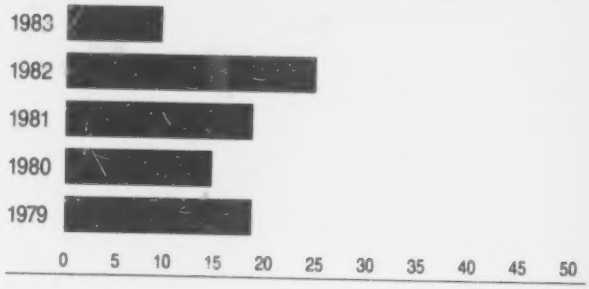
Number of producing wells: *Dec. 31*
Crude oil 3,734
Natural gas and distillate 123
Total 3,857
Percentage of wells on artificial lift 81%

Average daily production:
Crude oil—*bbls.* 138,877
NGL—*bbls.* 13,000
Total liquids—*bbls.* 151,877
Natural gas—*Mcf* 192,512

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	58	8	**66**
Production	44	5	**49**
Net reserve change	14	3	**17**
Proved reserves	237	71	**308**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	37	62	**99**
Production	42	15	**57**
Net reserve change	–5	47	**42**
Proved reserves	248	448	**696**

Number of producing stripper wells—*Dec. 31* 959
Number of stripper well abandonments 15
Crude oil stripper production—*thous. bbls.* 1,492,476
Percentage of oil produced by stripper wells 3%
Stripper well reserves: *thous. bbls.*
Primary 36,547
Secondary 28,715
Total **65,262**

Total drilling costs $878,100,864
Cost per well $1,254,430
Cost per foot $125.41

Note: Represents most currently available data.

STATE ENERGY OFFICE

North Dakota Industrial Commission
Oil and Gas Division
Capitol Building
Bismarck, ND 58505
Ph. 701-224-2969

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	88	
With oil and/or gas production	68	
Land area—*acres*	26,242,560	
Productive of oil and/or gas	3,216,051	
Non-productive of oil and/or gas	13,227,200	
Percentage of acreage leased	63%	
First year of production:		
Crude oil	1860	
Natural gas	1884	
Year and amount of peak production:		
Crude oil—23,941,000 *bbls.*	1896	
Natural gas—141,134 *MMcf*	1981	
Deepest well drilled: *ft.*		
Natural gas	8,488	
Dry hole	11,442	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	69,905	*46%*
Gas wells	46,436	*30%*
Dry holes	36,143	*24%*
Total	**152,484**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	999	8	1,007	7,066
Production	888	8	896	5,924

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$28.14
Natural gas—*$/Mcf*	$2.79
Wellhead value of 1983 production: *thous.*	
Crude oil	$421,284
Natural gas	$356,144
Crude oil wellhead value all time to 12/31/83—*thous.*	$4,023,861
Rank among principal minerals and percentage of total value:	
Crude oil—2nd	18%
Natural gas—3rd	15%
Severance and production taxes paid in 1983—*local and state*	$1,856,260
Number of employees in oil and gas production in 1983	11,283

1983 INDUSTRY STATISTICS

Seismic crew months worked 15
Rotary drilling rigs active—*average* 40

Number of wells drilled:

	Wildcat	Development	Total
Oil	28	2,189	**2,217**
Gas	98	3,444	**3,542**
Dry	57	267	**324**
Service	—	15	**15**
Total	**183**	**5,915**	**6,098**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	67.0	7,244.9	**7,311.9**
Gas	351.3	13,231.0	**13,582.3**
Dry	148.4	784.5	**932.9**
Service	—	26.5	**26.5**
Total	**566.7**	**21,286.9**	**21,853.6**

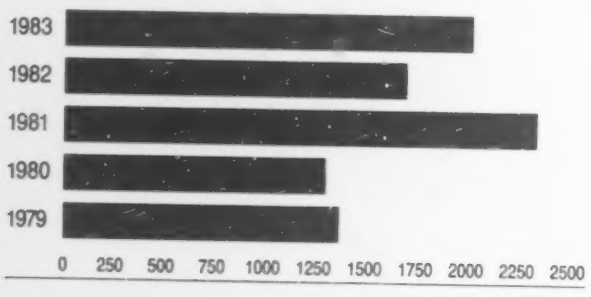
Number of new-field wildcats drilled 40

State-wide rank in:	Crude Oil	Natural Gas
Total wells	5th	1st
Production	19th	13th
Reserves *(1982)*	16th	16th

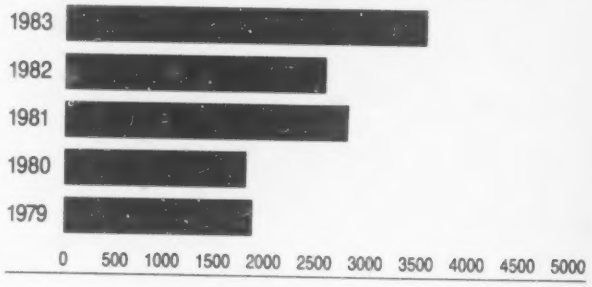
Number of producing wells: *Dec. 31*
Crude oil 26,287
Natural gas and distillate 24,621
Total 50,908
Percentage of wells on artificial lift 98%

Average daily production:
Crude oil—*bbls.* 41,016
NGL—*bbls.* 0
Total liquids—*bbls.* 41,016
Natural gas—*Mcf* 349,726

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	12	Unavailable	**12**
Production	13	0	**13**
Net reserve change	–1	—	**–1**
Proved reserves	111	Unavailable	**111**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	264	12	**276**
Production	80	19	**99**
Net reserve change	184	–7	**177**
Proved reserves	984	158	**1,142**

Number of producing stripper wells—*Dec. 31* 22,966
Number of stripper well abandonments 226
Crude oil stripper production—*thous. bbls.* 10,199,361
Percentage of oil produced by stripper wells 70%
Stripper well reserves: *thous. bbls.*
Primary 95,641
Secondary 313
Total **95,954**

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Ohio Department of Natural Resources
Division of Oil and Gas
Fountain Square, Building A
Columbus, OH 43224
Ph. 614-265-6917

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☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	77	
With oil and/or gas production	73	
Land area—*acres*	43,939,200	
Productive of oil and/or gas	4,025,000	
Non-productive of oil and/or gas	14,965,000	
Percentage of acreage leased	43%	
First year of production:		
Crude oil	1891	
Natural gas	1902	
Year and amount of peak production:		
Crude oil—277,775,000 *bbls.*	1927	
Natural gas—2,019,199 *MMcf*	1981	
Deepest well drilled: *ft.*		
Natural gas	24,969	
Dry hole	31,441	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	220,041	*60%*
Gas wells	40,731	*11%*
Dry holes	105,363	*29%*
Total	**366,135**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	13,221	3,274	16,495	73,067
Production	12,250	2,529	14,779	55,927

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$29.67
Natural gas—*$/Mcf*	$2.82
Wellhead value of 1983 production: *thous.*	
Crude oil	$4,705,781
Natural gas	$4,878,775
Crude oil wellhead value all time to 12/31/83—*thous.*	$52,149,054
Rank among principal minerals and percentage of total value:	
Crude oil—2nd	47%
Natural gas—1st	49%
Severance and production taxes paid in 1983—*local and state*	$709,917,415
Number of employees in oil and gas production in 1983	74,870

Compiled by IPAA — September 1984

1983 INDUSTRY STATISTICS

Seismic crew months worked 316
Rotary drilling rigs active—*average* 285

Number of wells drilled:

	Wildcat	Development	Total
Oil	110	4,937	**5,047**
Gas	99	1,802	**1,901**
Dry	438	2,624	**3,062**
Service	—	33	**33**
Total	**647**	**9,396**	**10,043**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	761.6	19,475.6	**20,237.2**
Gas	1,200.3	11,583.0	**12,783.3**
Dry	3,064.7	12,569.1	**15,633.8**
Service	—	94.8	**94.8**
Total	**5,026.6**	**43,722.5**	**48,749.1**

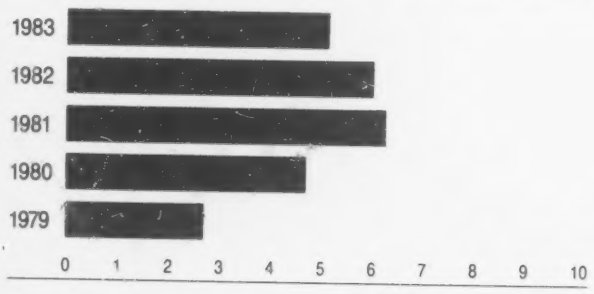
Number of new-field wildcats drilled 202

State-wide rank in:	Crude Oil	Natural Gas
Total wells	2nd	3rd
Production	5th	3rd
Reserves *(1982)*	5th	4th

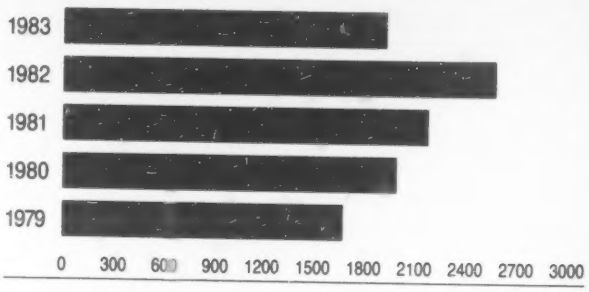
Number of producing wells: *Dec. 31*
Crude oil 95,868
Natural gas and distillate 22,135
Total 118,003
Percentage of wells on artificial lift 95%

Average daily production:
Crude oil—*bbls.* 434,532
NGL—*bbls.* 200,000
Total liquids—*bbls.* 634,532
Natural gas—*Mcf* 4,739,896

NUMBER OF OIL WELLS DRILLED *(thous.)*



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	159	191	**350**
Production	138	77	**215**
Net reserve change	21	114	**135**
Proved reserves	971	745	**1,716**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	334	3,029	**3,363**
Production	349	1,381	**1,730**
Net reserve change	−15	1,648	**1,633**
Proved reserves	2,426	14,714	**17,140**

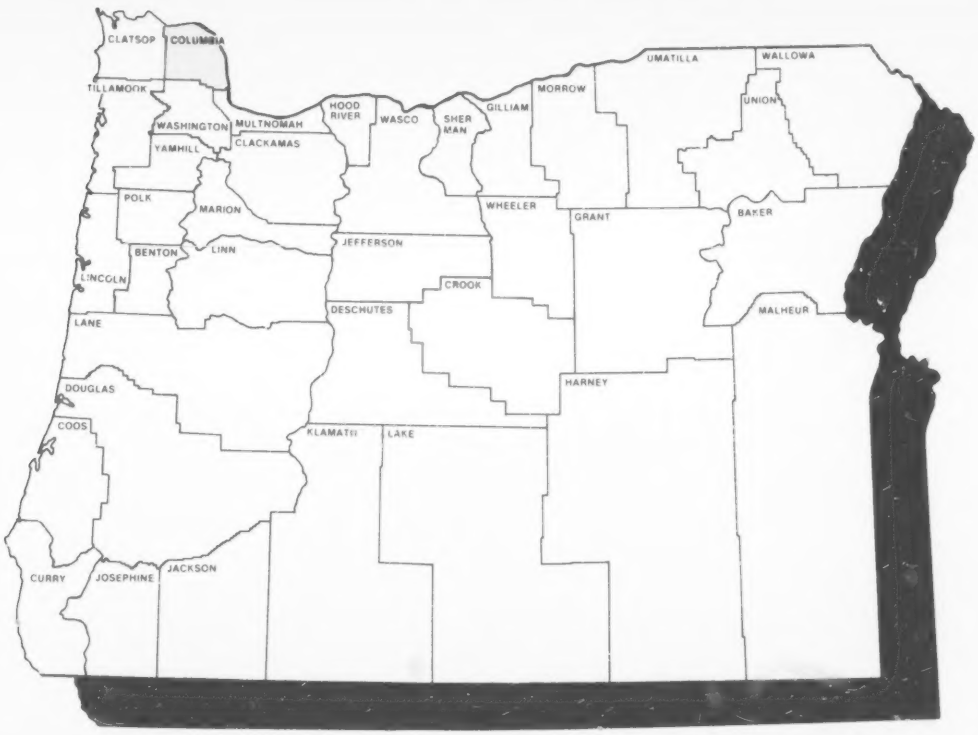
Number of producing stripper wells—*Dec. 31* 73,328
Number of stripper well abandonments 835
Crude oil stripper production—*thous. bbls.* 94,236,983
Percentage of oil produced by stripper wells 64%
Stripper well reserves: *thous. bbls.*
Primary 280,595
Secondary 320,670
Total **601,265**

Total drilling costs $7,558,647,628
Cost per well $732,995
Cost per foot $133.47

Note: Represents most currently available data.

STATE ENERGY OFFICE

Oklahoma Corporation Commission
Oil and Gas Division
Jim Thorpe Building
Oklahoma City, OK 73105
Ph. 405-521-2301



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	36	
With oil and/or gas production	1	
Land area—*acres*	61,557,760	
Productive of oil and/or gas	1,600	
Non-productive of oil and/or gas	7,000,000	
Percentage of acreage leased	11%	
First year of production:		
Crude oil	Not Applicable	
Natural gas	1979	
Year and amount of peak production:		
Crude oil	Not Applicable	
Natural gas—5 *MMcf*	1983	
Deepest well drilled: *ft.*		
Natural gas	2,654	
Dry hole	13,177	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	0	*0%*
Gas wells	11	*4%*
Dry holes	281	*96%*
Total	**292**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	0	Unavailable	—	Unavailable
Production	0	Unavailable	—	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	Not Applicable
Natural gas—*$/Mcf*	$3.41
Wellhead value of 1983 production: *thous.*	
Crude oil	Not Applicable
Natural gas	$17
Crude oil wellhead value all time to 12/31/83—*thous.*	Not Applicable
Rank among principal minerals and percentage of total value:	
Crude oil	Not Applicable
Natural gas	Unavailable
Severance and production taxes paid in 1983—*local and state*	$415,882
Number of employees in oil and gas production in 1983	82

1983 INDUSTRY STATISTICS

Seismic crew months worked 13
Rotary drilling rigs active—*average* ..... Not Applicable

Number of wells drilled:

	Wildcat	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	0	0	0
Service	—	0	0
Total	0	0	0

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	0	0	0
Gas	0	0	0
Dry	0	0	0
Service	—	0	0
Total	0	0	0

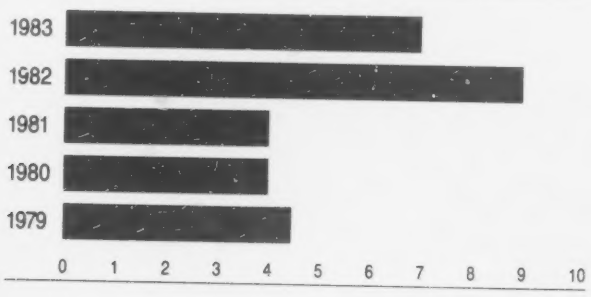
Number of new-field wildcats drilled 0

State-wide rank in:	Crude Oil	Natural Gas
Total wells	Not Applicable	Not Applicable
Production	Not Applicable	31st
Reserves *(1982)*	Not Applicable	Unavailable

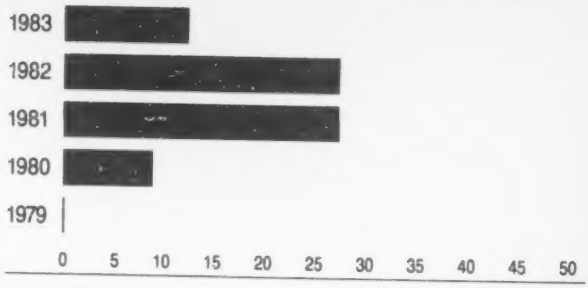
Number of producing wells: *Dec. 31*
Crude oil 0
Natural gas and distillate 0
Total 0
Percentage of wells on artificial lift ..... Not Applicable

Average daily production:
Crude oil—*bbls.* 0
NGL—*bbls.* 6
Total liquids—*bbls.* 6
Natural gas—*Mcf* 14

ACREAGE UNDER LEASE *(mill. acres)*



SEISMIC CREW MONTHS WORKED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	0	0	—
Production	0	—	—
Net reserve change	—	—	—
Proved reserves	0	Unavailable	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

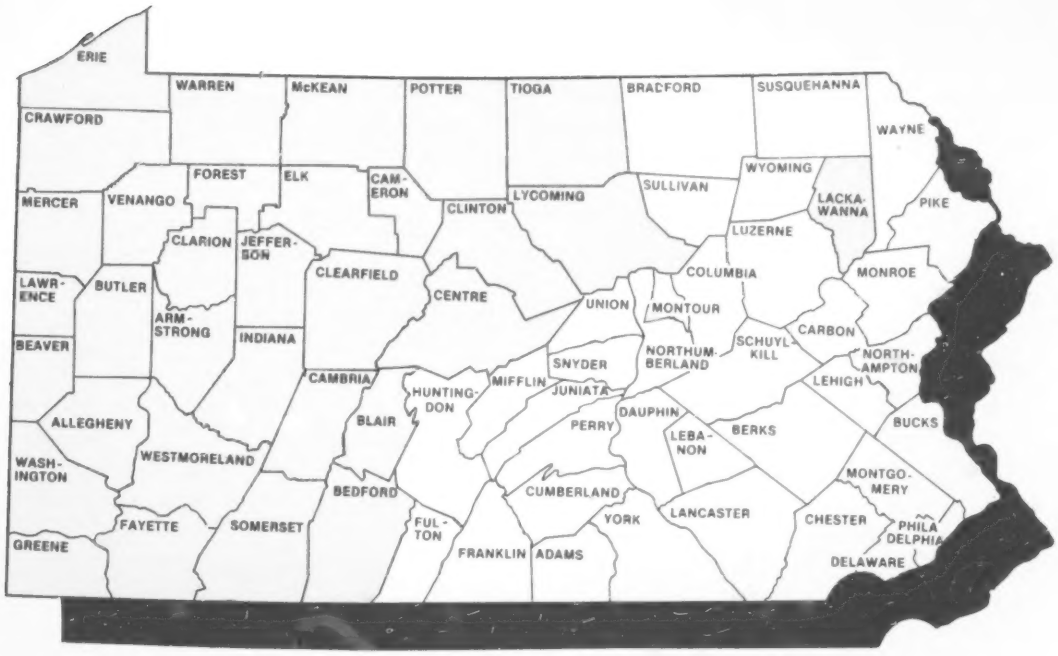
Number of producing stripper wells—*Dec. 31* 0
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 0
Percentage of oil produced by stripper wells .... Not Applicable
Stripper well reserves: *thous. bbls.*
Primary 0
Secondary 0
Total 0

Total drilling costs ..... Not Applicable
Cost per well ..... Not Applicable
Cost per foot ..... Not Applicable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Oregon Department of Geology and Mineral Industries
1005 State Office Building
Portland, OR 97201
Ph. 503-229-5580



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	67	
With oil and/or gas production	32	
Land area—*acres*	28,728,320	
Productive of oil and/or gas	2,940,610	
Non-productive of oil and/or gas	14,731,550	
Percentage of acreage leased	62%	
First year of production:		
Crude oil	1859	
Natural gas	1881	
Year and amount of peak production:		
Crude oil—31,424,000 *bbls.*	1891	
Natural gas—145,934 *MMcf*	1954	
Deepest well drilled: *ft.*		
Natural gas	19,365	
Dry hole	21,460	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	247,306	*79%*
Gas wells	26,556	*9%*
Dry holes	38,296	*12%*
Total	**312,158**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	1,341	15	1,356	11,014
Production	1,304	15	1,319	9,584

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$32.30
Natural gas—*$/Mcf*	$2.92
Wellhead value of 1983 production: *thous.*	
Crude oil	$138,309
Natural gas	$325,312
Crude oil wellhead value all time to 12/31/83—*thous.*	$3,621,240
Rank among principal minerals and percentage of total value:	
Crude oil—5th	4%
Natural gas—2nd	9%
Severance and production taxes paid in 1983—*local and state*	Unavailable
Number of employees in oil and gas production in 1983	4,868

Compiled by IPAA — September 1984

1983 INDUSTRY STATISTICS

Seismic crew months worked 27
Rotary drilling rigs active—*average* 22

Number of wells drilled:

	Wildcat	Development	Total
Oil	13	1,448	**1,461**
Gas	93	837	**930**
Dry	15	47	**62**
Service	—	78	**78**
Total	**121**	**2,410**	**2,531**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	25.1	1,601.5	**1,626.6**
Gas	462.9	3,022.9	**3,485.8**
Dry	47.0	79.7	**126.7**
Service	—	142.8	**142.8**
Total	**535.0**	**4,846.9**	**5,381.9**

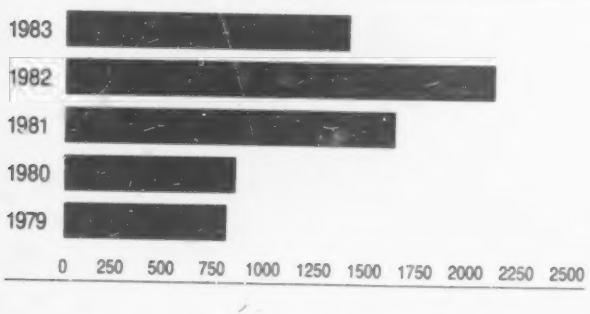
Number of new-field wildcats drilled 14

State-wide rank in:	Crude Oil	Natural Gas
Total wells	7th	5th
Production	23rd	14th
Reserves *(1982)*	21st	14th

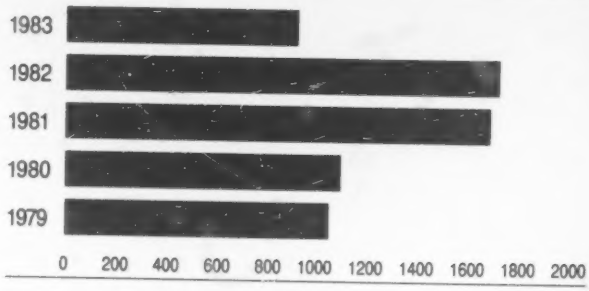
Number of producing wells: *Dec. 31*
Crude oil 24,657
Natural gas and distillate 23,000
Total 47,657
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 11,732
NGL—*bbls.* 100
Total liquids—*bbls.* 11,832
Natural gas—*Mcf* 305,110

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	8	Unavailable	**8**
Production	3	—	**3**
Net reserve change	5	—	**5**
Proved reserves	37	Unavailable	**37**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	1	266	**267**
Production	1	101	**102**
Net reserve change	0	165	**165**
Proved reserves	14	1,416	**1,430**

Number of producing stripper wells—*Dec. 31* 23,438
Number of stripper well abandonments 863
Crude oil stripper production—*thous. bbls.* 3,717,935
Percentage of oil produced by stripper wells 87%
Stripper well reserves: *thous. bbls.*
Primary 14,103
Secondary 35,661
Total **49,764**

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Pennsylvania Department of Environmental Resources
Oil and Gas Division
P.O. Box 2063
Harrisburg, PA 17120
Ph. 717-787-2814

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties		67
With oil and/or gas production		4
Land area—*acres*		48,609,280
Productive of oil and/or gas		1,032,640
Non-productive of oil and/or gas		9,844,700
Percentage of acreage leased		22%
First year of production:		
Crude oil		1953
Natural gas		1899
Year and amount of peak production:		
Crude oil—1,172,000 *bbls.*		1983
Natural gas—2,311 *MMcf*		1982
Deepest well drilled: *ft.*		
Crude oil		9,150
Dry hole		9,771
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	176	*17%*
Gas wells	68	*7%*
Dry holes	788	*76%*
Total	**1,032**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	Unavailable	—	Unavailable
Production	Unavailable	Unavailable	—	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$31.90
Natural gas—*$/Mcf*	$3.17
Wellhead value of 1983 production: *thous.*	
Crude oil	$37,387
Natural gas	$5,009
Crude oil wellhead value all time to 12/31/83—*thous.*	$185,754
Rank among principal minerals and percentage of total value:	
Crude oil—2nd	21%
Natural gas—6th	3%
Severance and production taxes paid in 1983—*local and state*	$1,706,982
Number of employees in oil and gas production in 1983	124

Compiled by IPAA — September 1984

1983 INDUSTRY STATISTICS

Seismic crew months worked 14
Rotary drilling rigs active—*average* 1

Number of wells drilled:

	Wildcat	Development	Total
Oil	1	16	17
Gas	3	9	12
Dry	44	7	51
Service	—	0	0
Total	48	32	80

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	3.5	131.5	135.0
Gas	4.2	14.3	18.5
Dry	128.0	30.5	158.5
Service	—	0	0
Total	135.7	176.3	312.0

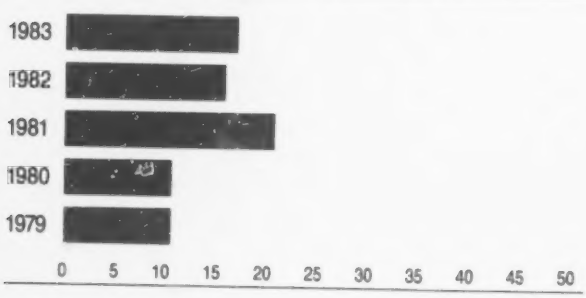
Number of new-field wildcats drilled 45

State-wide rank in:	Crude Oil	Natural Gas
Total wells	27th	24th
Production	25th	25th
Reserves *(1982)*	Unavailable	Unavailable

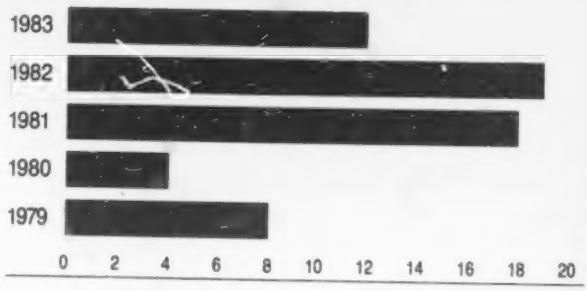
Number of producing wells: *Dec. 31*
Crude oil 140
Natural gas and distillate 0
Total 140
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 3,211
NGL—*bbls.* 150
Total liquids—*bbls.* 3,361
Natural gas—*Mcf* 4,329

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Number of producing stripper wells—*Dec. 31* 33
Number of stripper well abandonments 3
Crude oil stripper production—*thous. bbls.* 55,444
Percentage of oil produced by stripper wells 48%
Stripper well reserves: *thous. bbls.*
Primary 313
Secondary 0
Total 313

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

South Dakota Geological Survey
Science Center
University of South Dakota
Vermillion, SD 57069
Ph. 605-624-4471

IMPORTANT

THE IPAA IS LOOKING FOR A FEW KEY MEN

A SPECIAL OPPORTUNITY FOR THE POLITICALLY MINDED PRODUCER

A new communication program will soon help protect the nation's oil and gas producers from the escalating attacks from the halls of Congress.

The "Key Man Program" utilizes computer facilities at the Independent Petroleum Association of America and will store important information concerning government relations in the association's Washington, D.C. office.

A major component of the new data system will be a listing of IPAA members who have special relationships with members of Congress, or are willing to contact congressmen and explain the views of producers.

The Program may well be instrumental for the industry's success in many critical votes on Capitol Hill. However, in order to make the Key Man Program work effectively, it is vital that IPAA members from across the country take an active role. This is a unique opportunity for producers to pool their information and have an impact on energy legislation.

IPAA Counsel Barry Russell is coordinating the Key Man Program. Initial registration began at the last association Executive Committee Meeting and is continuing now. Those interested in participating should fill in the form and send it to Barry Russell, Key Man Program, 1101 16th Street, N.W., Washington, D.C., 20036. **For more information, call (202) 857-4735.**

KEY MAN PROGRAM

Please list the congressmen you would be willing to contact, and use the notations below to describe your relationship.

Name: _____
Company: _____
Address: _____
_____
_____
Phone: (___) _____

A . . . campaign contribution
B . . . know congressman well
C . . . know congressman slightly
D . . . do not know congressman, but am willing to contact and give our views

Congressmen:		Senators:	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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TULSA, OKLAHOMA
918-582-1731
Telex 492334

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GENSCO, INC. 1600 One Forum, 8000 I-H 10 West/San Antonio, Texas 78230/Telephone 512/340-3586

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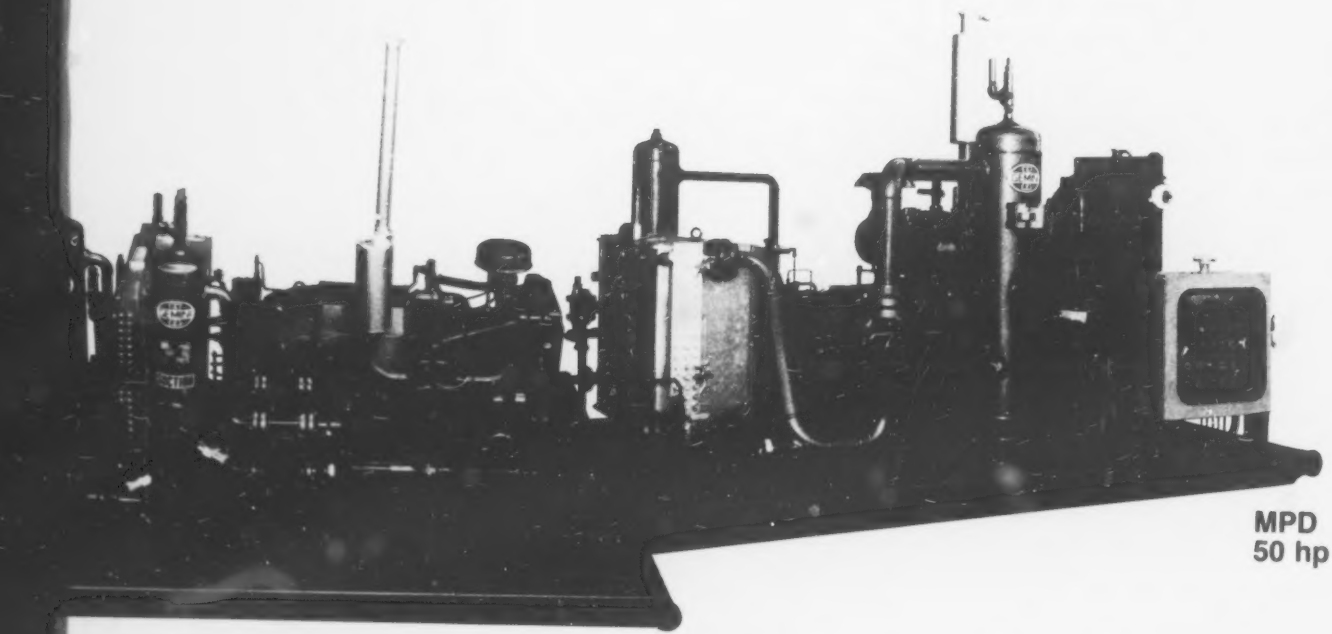
Take your choice — there's a 13 hp, a 26 hp and a 50 hp. So you see, we have the compressor you need to keep selling gas — unmatched in quality, performance, and ease of maintenance.

Now, if you can't afford to stop, call for one of our five Geminis ... Each a winner.



MPD
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GEMINI

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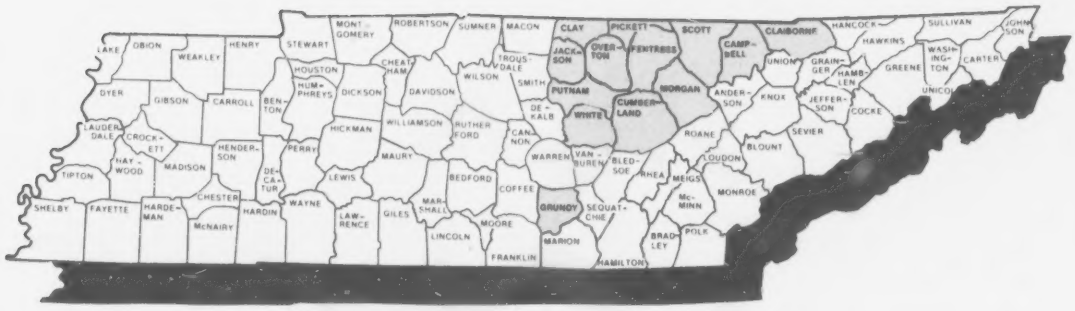
P.O. Box 9258
Corpus Christi, Texas 78469
1-800-531-3001 (in Texas) 512-289-5454



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	95	
With oil and/or gas production	13	
Land area—*acres*	26,339,200	
Productive of oil and/or gas	50,716	
Non-productive of oil and/or gas	9,779,284	
Percentage of acreage leased	37%	
First year of production:		
Crude oil	1860	
Natural gas	1889	
Year and amount of peak production:		
Crude oil—1,132,000 *bbls.*	1982	
Natural gas—2,976 *MMcf*	1982	
Deepest well drilled: *ft.*		
Natural gas	3,059	
Dry hole	10,478	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	1,431	*27%*
Gas wells	1,280	*24%*
Dry holes	2,538	*49%*
Total	5,249	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	—	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$32.00
Natural gas—*$/Mcf*	$3.21
Wellhead value of 1983 production: *thous.*	
Crude oil	$33,792
Natural gas	$5,505
Crude oil wellhead value all time to 12/31/83—*thous.*	$187,403
Rank among principal minerals and percentage of total value:	
Crude oil—4th	5%
Natural gas—8th	1%
Severance and production taxes paid in 1983—*local and state*	$1,398,216
Number of employees in oil and gas production in 1983	763

1983 INDUSTRY STATISTICS

Seismic crew months worked 17
Rotary drilling rigs active—*average* ..... Unavailable

Number of wells drilled:

	Wildcat	Development	Total
Oil	148	118	**266**
Gas	231	107	**338**
Dry	264	59	**323**
Service	—	0	**0**
Total	**643**	**284**	**927**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	225.0	171.2	**396.2**
Gas	366.4	155.6	**522.0**
Dry	406.9	76.7	**483.6**
Service	—	0	**0**
Total	**998.3**	**403.5**	**1,401.8**

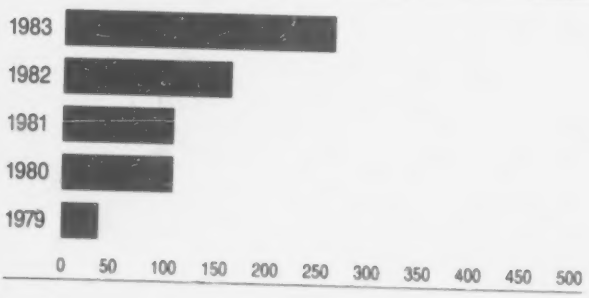
Number of new-field wildcats drilled 510

State-wide rank in:	Crude Oil	Natural Gas
Total wells	18th	11th
Production	26th	24th
Reserves *(1982)*	Unavailable	Unavailable

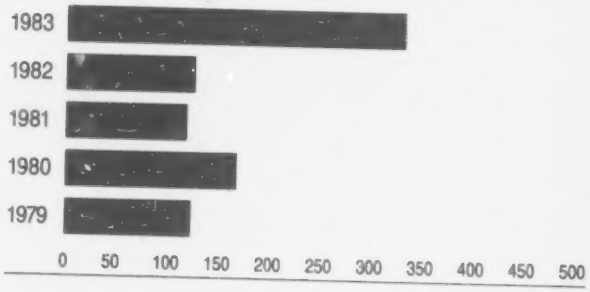
Number of producing wells: *Dec. 31*
Crude oil 693
Natural gas and distillate 415
Total 1,108
Percentage of wells on artificial lift 82%

Average daily production:
Crude oil—*bbls.* 2,893
NGL—*bbls.* 0
Total liquids—*bbls.* 2,893
Natural gas—*Mcf* 4,699

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	Unavailable	—
Production	—	0	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	Unavailable	Unavailable	—
Production	—	—	—
Net reserve change	—	—	—
Proved reserves	Unavailable	Unavailable	—

Number of producing stripper wells—*Dec. 31* ..... Unavailable
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* ..... Unavailable
Percentage of oil produced by stripper wells ..... Unavailable
Stripper well reserves: *thous. bbls.*
Primary ..... Unavailable
Secondary ..... Unavailable
Total ..... Unavailable

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Tennessee Department of Conservation
Oil and Gas Division
701 Broadway Street
Nashville, TN 37203
Ph. 615-742-6747

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	254	
With oil and/or gas production	215	
Land area—*acres*	167,690,880	
Productive of oil and/or gas	14,938,000	
Non-productive of oil and/or gas	55,362,000	
Percentage of acreage leased	42%	
First year of production:		
Crude oil	1889	
Natural gas	1889	
Year and amount of peak production:		
Crude oil—1,301,685,000 *bbls.*	1972	
Natural gas—8,657,840 *MMcf*	1972	
Deepest well drilled: *ft.*		
Natural gas	26,536	
Dry hole	29,670	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	458,028	*59%*
Gas wells	67,114	*8%*
Dry holes	256,207	*33%*
Total	**781,349**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	62,489	12,852	75,341	297,039
Production	54,873	10,082	64,955	243,908

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$29.35
Natural gas—*$/Mcf*	$2.26
Wellhead value of 1983 production: *thous.*	
Crude oil	$26,493,541
Natural gas	$13,363,457
Crude oil wellhead value all time to 12/31/83—*thous.*	$262,699,980
Rank among principal minerals and percentage of total value:	
Crude oil—1st	63%
Natural gas—2nd	32%
Severance and production taxes paid in 1983—*local and state*	$2,251,313,556
Number of employees in oil and gas production in 1983	252,408

1983 INDUSTRY STATISTICS

Seismic crew months worked 1,353
Rotary drilling rigs active—*average* 797

Number of wells drilled:

	Wildcat	Development	Total
Oil	683	12,419	**13,102**
Gas	824	2,493	**3,317**
Dry	3,315	4,230	**7,545**
Service	—	652	**652**
Total	**4,822**	**19,794**	**24,616**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	4,141.5	50,532.0	**54,673.5**
Gas	6,252.9	17,887.0	**24,139.9**
Dry	19,099.2	16,317.1	**35,416.3**
Service	—	1,936.3	**1,936.3**
Total	**29,493.7**	**86,672.4**	**116,166.0**

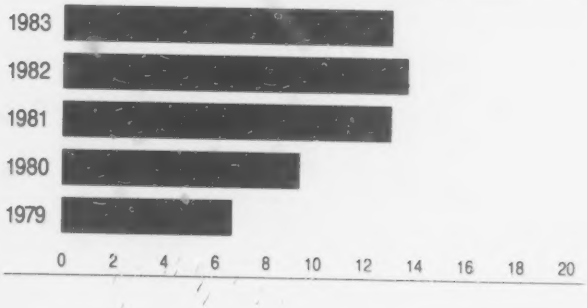
Number of new-field wildcats drilled 1,909

State-wide rank in:	Crude Oil	Natural Gas
Total wells	1st	2nd
Production	1st	1st
Reserves *(1982)*	1st	1st

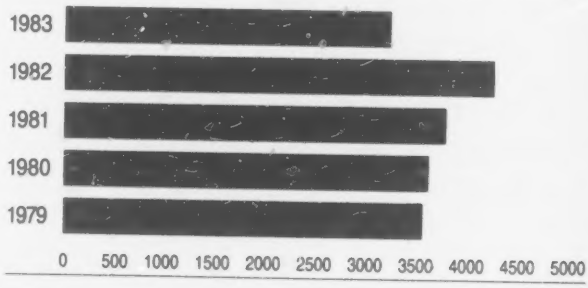
Number of producing wells: *Dec. 31*
Crude oil 195,595
Natural gas and distillate 43,395
Total 238,990
Percentage of wells on artificial lift 92%

Average daily production:
Crude oil—*bbls.* 2,473,085
NGL—*bbls.* 850,000
Total liquids—*bbls.* 3,323,085
Natural gas—*Mcf* 16,200,093

NUMBER OF OIL WELLS DRILLED *(thous.)*



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	389	447	**836**
Production	866	322	**1,188**
Net reserve change	-477	125	**-352**
Proved reserves	7,616	2,771	**10,387**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	1,060	4,771	**5,831**
Production	1,293	5,095	**6,388**
Net reserve change	-233	-324	**-557**
Proved reserves	11,073	42,058	**53,131**

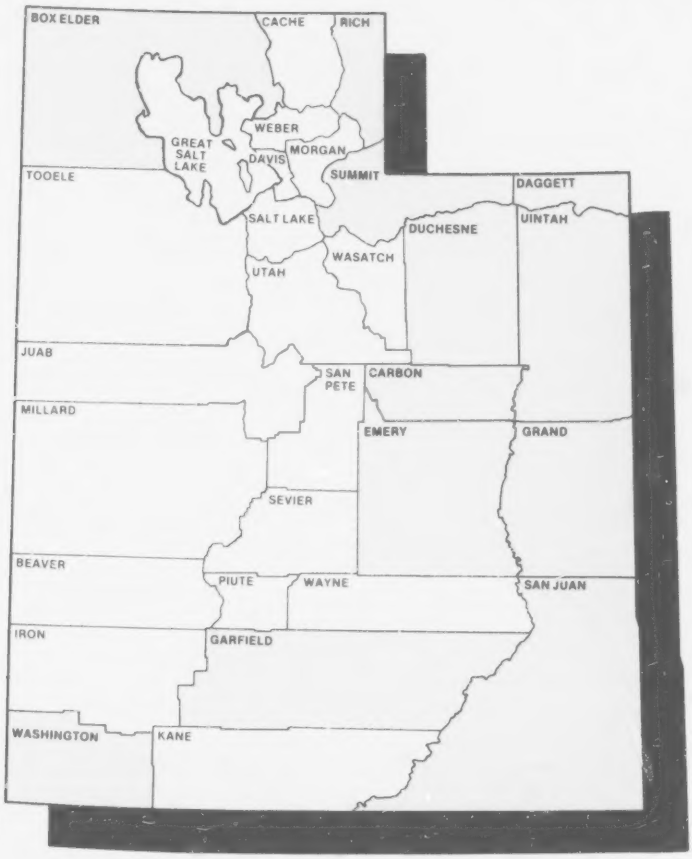
Number of producing stripper wells—*Dec. 31* 111,671
Number of stripper well abandonments 2,920
Crude oil stripper production—*thous. bbls.* 143,928,747
Percentage of oil produced by stripper wells 17%
Stripper well reserves: *thous. bbls.*
Primary 1,146,649
Secondary 938,167
Total **2,084,816**

Total drilling costs $12,013,362,944
Cost per well $494,907
Cost per foot $96.05

Note: Represents most currently available data.

STATE ENERGY OFFICE

Texas Railroad Commission
Office of Oil and Gas
P.O. Drawer 12967
Austin, TX 78711
Ph. 512-445-1100



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	29	
With oil and/or gas production	12	
Land area—*acres*	52,526,720	
Productive of oil and/or gas	487,686	
Non-productive of oil and/or gas	37,742,000	
Percentage of acreage leased	73%	
First year of production:		
Crude oil	1907	
Natural gas	1886	
Year and amount of peak production:		
Crude oil—42,301,000 *bbls.*	1975	
Natural gas—107,000 *MMcf*	1983	
Deepest well drilled: *ft.*		
Crude oil	17,732	
Dry hole	21,874	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	2,828	*38%*
Gas wells	1,179	*16%*
Dry holes	3,340	*46%*
Total	7,347	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	926	357	1,283	3,866
Production	753	65	818	1,613

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$28.12
Natural gas—*$/Mcf*	$3.15
Wellhead value of 1983 production: *thous.*	
Crude oil	$830,496
Natural gas	$337,050
Crude oil wellhead value all time to 12/31/83—*thous.*	$5,981,195
Rank among principal minerals and percentage of total value:	
Crude oil—1st	36%
Natural gas—3rd	15%
Severance and production taxes paid in 1983—*local and state*	$26,020,868
Number of employees in oil and gas production in 1983	4,493

1983 INDUSTRY STATISTICS

Seismic crew months worked 111
Rotary drilling rigs active—*average* 37

Number of wells drilled:

	Wildcat	Development	Total
Oil	34	107	**141**
Gas	22	108	**130**
Dry	80	50	**130**
Service	—	20	**20**
Total	**136**	**285**	**421**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	211.9	704.9	**916.8**
Gas	145.6	756.6	**902.2**
Dry	551.3	189.4	**740.7**
Service	—	119.5	**119.5**
Total	**908.8**	**1,770.4**	**2,679.2**

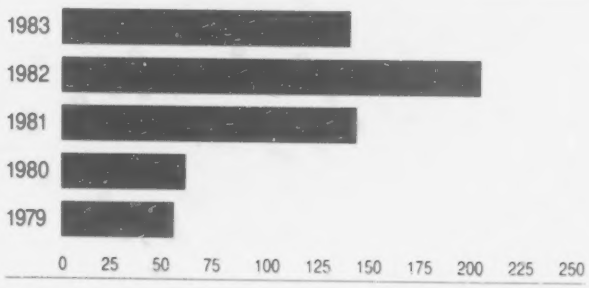
Number of new-field wildcats drilled 99

State-wide rank in:	Crude Oil	Natural Gas
Total wells	21st	15th
Production	12th	15th
Reserves *(1982)*	13th	10th

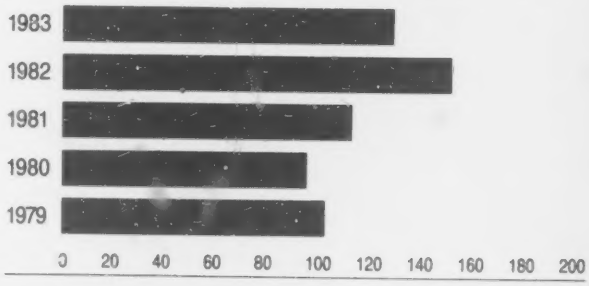
Number of producing wells: *Dec. 31*
Crude oil 1,634
Natural gas and distillate 322
Total 1,956
Percentage of wells on artificial lift 76%

Average daily production:
Crude oil—*bbls.* 80,915
NGL—*bbls.* 10,000
Total liquids—*bbls.* 90,915
Natural gas—*Mcf* 293,151

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	7	18	**25**
Production	24	4	**28**
Net reserve change	–17	14	**–3**
Proved reserves	173	286	**459**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	16	271	**287**
Production	26	65	**91**
Net reserve change	–10	206	**196**
Proved reserves	325	1,928	**2,253**

Number of producing stripper wells—*Dec. 31* ..... Unavailable
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* ..... Unavailable
Percentage of oil produced by stripper wells ..... Unavailable
Stripper well reserves: *thous. bbls.*
Primary ..... Unavailable
Secondary ..... Unavailable
Total ..... Unavailable

Total drilling costs $578,440,369
Cost per well $1,332,812
Cost per foot $201.50

Note: Represents most currently available data.

STATE ENERGY OFFICE

Utah Geological and Mining Survey
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, UT 84114
Ph. 801-581-6831

☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	96	
With oil and/or gas production	8	
Land area—*acres*	25,410,560	
Productive of oil and/or gas	122,700	
Non-productive of oil and/or gas	3,253,696	
Percentage of acreage leased	13%	
First year of production:		
Crude oil	1943	
Natural gas	1931	
Year and amount of peak production:		
Crude oil—61,000 *bbls.*	1947	
Natural gas—8,903 *MMcf*	1981	
Deepest well drilled: *ft.*		
Natural gas	7,238	
Dry hole	17,003	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	56	*10%*
Gas wells	357	*66%*
Dry holes	127	*24%*
Total	540	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL *(mill. bbls.)*	Total	Natural Gas-*Bcf*
Reserves	Unavailable	0	—	Unavailable
Production	Unavailable	0	--	Unavailable

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$32.25
Natural gas—*$/Mcf*	$3.81
Wellhead value of 1983 production: *thous.*	
Crude oil	$2,096
Natural gas	$19,660
Crude oil wellhead value all time to 12/31/83—*thous.*	$5,604
Rank among principal minerals and percentage of total value:	
Crude oil—7th	0.1%
Natural gas—5th	1.0%
Severance and production taxes paid in 1983—*local and state*	Unavailable
Number of employees in oil and gas production in 1983	200

1983 INDUSTRY STATISTICS

Seismic crew months worked 9
Rotary drilling rigs active—*average* ..... Unavailable

Number of wells drilled:

	Wildcat	Development	Total
Oil	4	9	13
Gas	5	7	12
Dry	6	6	12
Service	—	0	0
Total	15	22	37

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	17.3	20.4	37.7
Gas	27.7	34.9	62.6
Dry	32.0	14.4	46.4
Service	—	0	0
Total	77.0	69.7	146.7

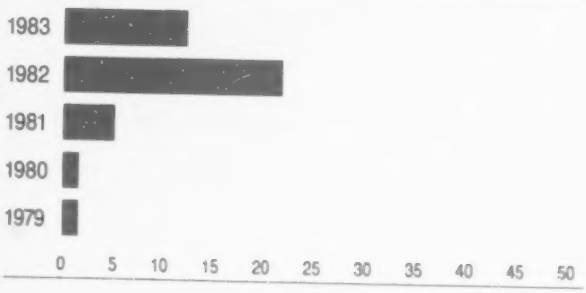
Number of new-field wildcats drilled 14

State-wide rank in:	Crude Oil	Natural Gas
Total wells	28th	24th
Production	31st	23rd
Reserves *(1982)*	Unavailable	21st

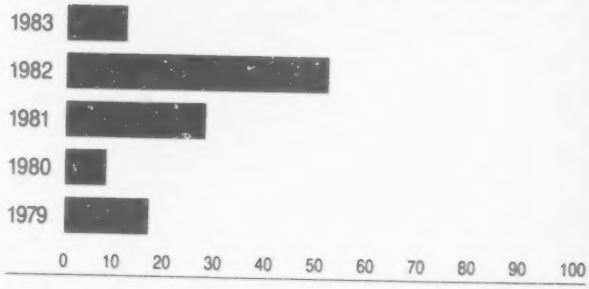
Number of producing wells: *Dec. 31*
Crude oil 0
Natural gas and distillate 292
Total 292
Percentage of wells on artificial lift ..... Not Applicable

Average daily production:
Crude oil—*bbls.* 178
NGL—*bbls.* 0
Total liquids—*bbls.* 178
Natural gas—*Mcf* 14,137

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	Unavailable	0	—
Production	—	0	—
Net reserve change	—	—	—
Proved reserves	Unavailable	0	—

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	0	10	10
Production	0	6	6
Net reserve change	0	4	4
Proved reserves	0	122	122

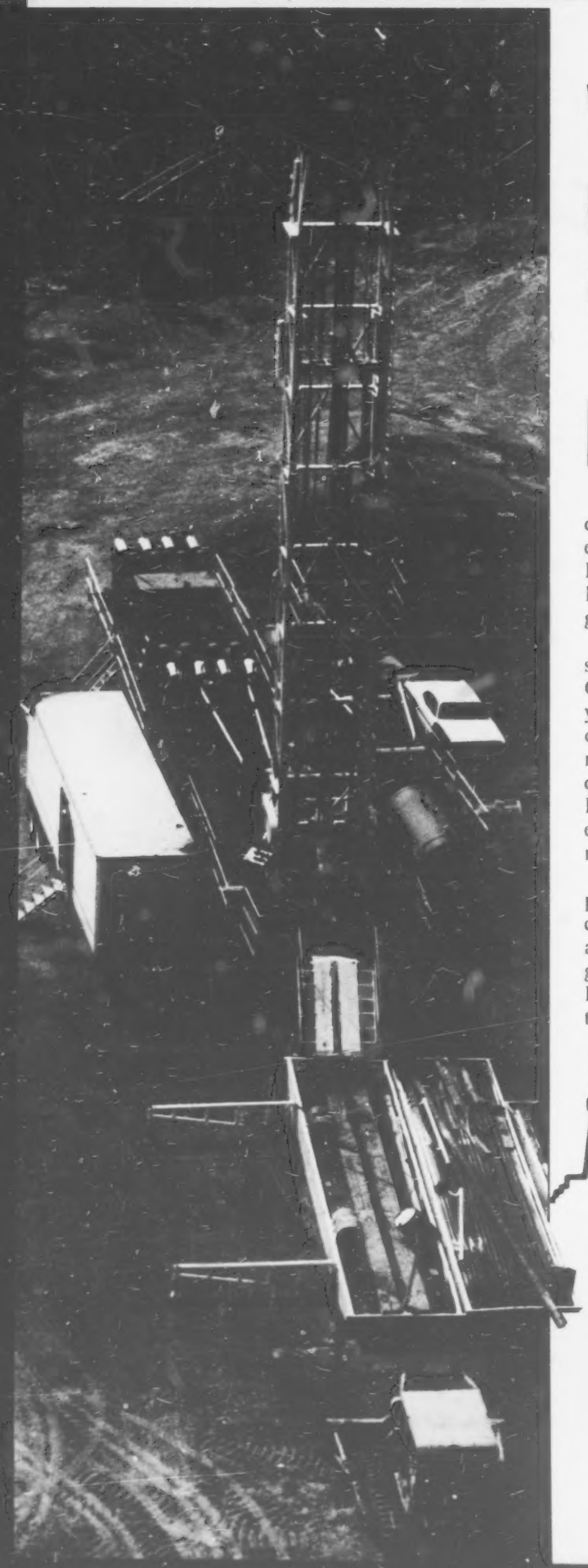
Number of producing stripper wells—*Dec. 31* 20
Number of stripper well abandonments 0
Crude oil stripper production—*thous. bbls.* 49,424
Percentage of oil produced by stripper wells 100%
Stripper well reserves: *thous. bbls.*
Primary 59
Secondary 0
Total 59

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

Virginia Energy Division
Office of Oil and Gas
310 Turner Road
Richmond, VA 23225
Ph. 804-323-2893



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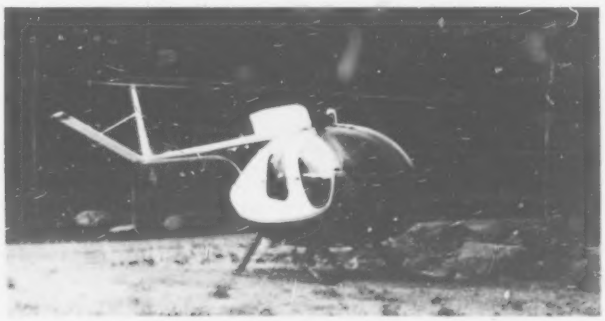
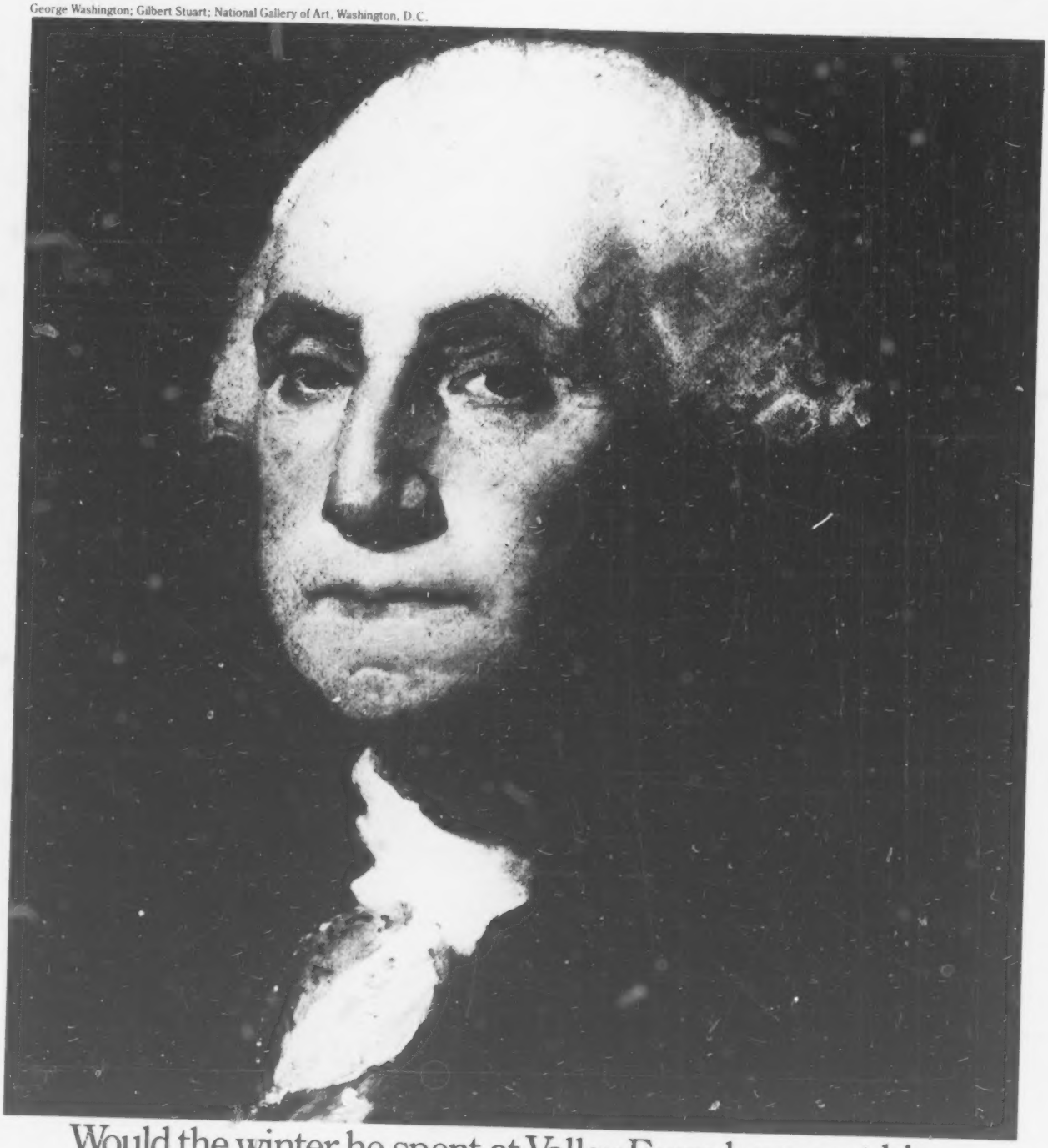


George Washington; Gilbert Stuart; National Gallery of Art, Washington, D.C.



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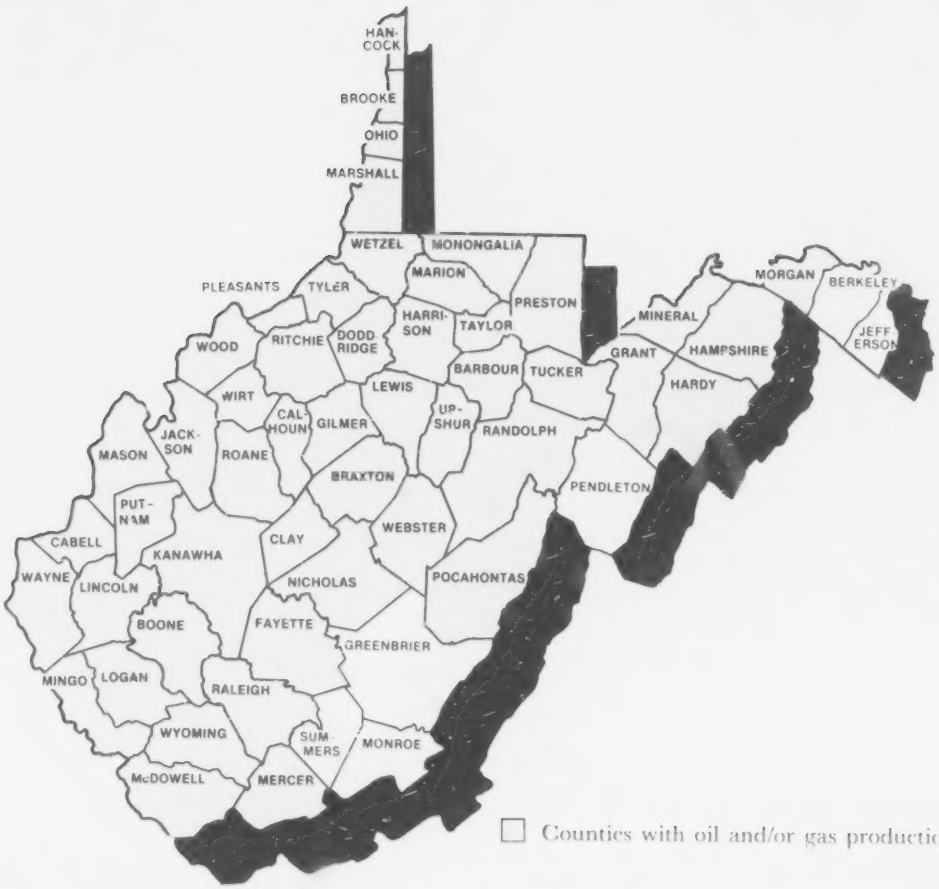


HISTORICAL INFORMATION

Number of counties	55
With oil and/or gas production	49
Land area—*acres*	15,436,160
Productive of oil and/or gas	7,693,000
Non-productive of oil and/or gas	6,064,000
Percentage of acreage leased	89%
First year of production:	
Crude oil	1860
Natural gas	1885
Year and amount of peak production:	
Crude oil—16,196,000 *bbls.*	1900
Natural gas—242,452 *MMcf*	1970
Deepest well drilled: *ft.*	
Natural gas	14,300
Dry hole	20,222

Number of total wells drilled as of 12/31/83: *(excluding service wells)*

Oil wells	47,154	*43%*
Gas wells	42,512	*39%*
Dry holes	19,499	*18%*
Total	**109,165**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	580	328	908	17,876
Production	532	249	781	15,624

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$32.60
Natural gas—*$/Mcf*	$3.43
Wellhead value of 1983 production: *thous.*	
Crude oil	$118,273
Natural gas	$460,453
Crude oil wellhead value all time to 12/31/83—*thous.*	$1,777,557
Rank among principal minerals and percentage of total value:	
Crude oil—3rd	2%
Natural gas—2nd	8%
Severance and production taxes paid in 1983—*local and state*	$35,300,000
Number of employees in oil and gas production in 1983	5,866

1983 INDUSTRY STATISTICS

Seismic crew months worked 17
Rotary drilling rigs active—*average* 34

Number of wells drilled:

	Wildcat	Development	Total
Oil	6	278	**284**
Gas	82	1,488	**1,570**
Dry	26	99	**125**
Service	—	46	**46**
Total	**114**	**1,911**	**2,025**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	18.6	1,076.6	**1,095.2**
Gas	428.0	6,504.1	**6,932.1**
Dry	108.5	333.6	**442.1**
Service	—	101.3	**101.3**
Total	**555.1**	**8,015.7**	**8,570.7**

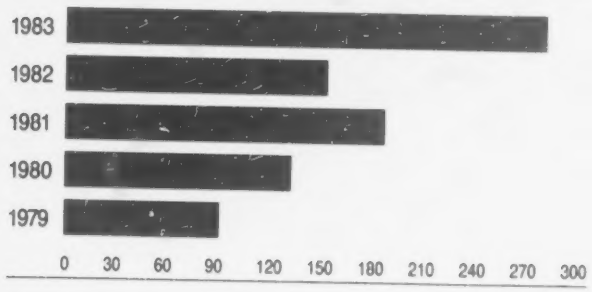
Number of new-field wildcats drilled 6

State-wide rank in:	Crude Oil	Natural Gas
Total wells	17th	4th
Production	24th	12th
Reserves *(1982)*	20th	11th

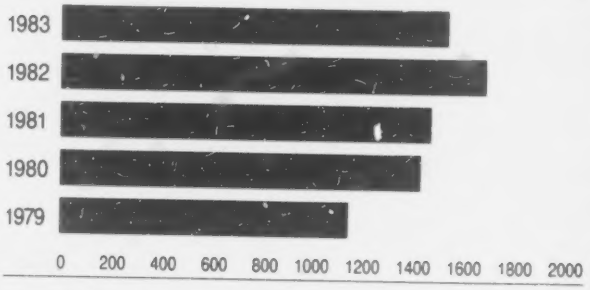
Number of producing wells: *Dec. 31*
Crude oil 15,300
Natural gas and distillate 29,675
Total 44,975
Percentage of wells on artificial lift 100%

Average daily production:
Crude oil—*bbls.* 9,940
NGL—*bbls.* 14,000
Total liquids—*bbls.* 23,940
Natural gas—*Mcf* 367,838

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	21	–1	**20**
Production	3	5	**8**
Net reserve change	18	6	**12**
Proved reserves	48	79	**127**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	24	426	**450**
Production	4	138	**142**
Net reserve change	20	288	**308**
Proved reserves	83	2,169	**2,252**

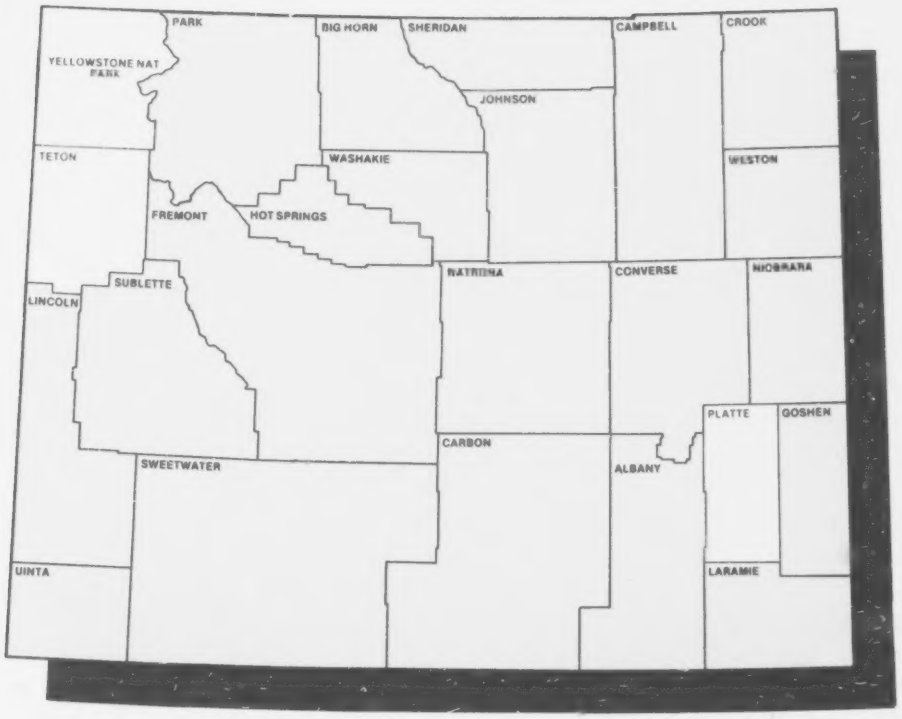
Number of producing stripper wells—*Dec. 31* 14,550
Number of stripper well abandonments 34
Crude oil stripper production—*thous. bbls.* 2,683,000
Percentage of oil produced by stripper wells 99%
Stripper well reserves: *thous. bbls.*
Primary 20,004
Secondary 30,006
Total **50,010**

Total drilling costs ..... Unavailable
Cost per well ..... Unavailable
Cost per foot ..... Unavailable

Note: Represents most currently available data.

STATE ENERGY OFFICE

West Virginia Department of Mines
Oil and Gas Division
1613 Washington Street, East
Charleston, WV 25311
Ph. 304-348-2055



☐ Counties with oil and/or gas production

HISTORICAL INFORMATION

Number of counties	23	
With oil and/or gas production	20	
Land area—*acres*	62,072,960	
Productive of oil and/or gas	2,598,400	
Non-productive of oil and/or gas	36,400,700	
Percentage of acreage leased	63%	
First year of production:		
Crude oil	1867	
Natural gas	1889	
Year and amount of peak production:		
Crude oil—160,345,000 *bbls.*	1970	
Natural gas—427,386 *MMcf*	1983	
Deepest well drilled: *ft.*		
Natural gas	19,610	
Dry hole	25,764	
Number of total wells drilled as of 12/31/83: *(excluding service wells)*		
Oil wells	24,219	*52%*
Gas wells	3,397	*7%*
Dry holes	19,243	*41%*
Total	**46,859**	*100%*

Cumulative production and reserves as of 12/31/82:

	Crude Oil	NGL	Total	Natural Gas-*Bcf*
		(mill. bbls.)		
Reserves	5,771	683	6,454	20,113
Production	4,915	294	5,209	9,958

VALUE OF OIL AND GAS

Average 1983 field price:	
Crude oil—*$/bbl.*	$27.19
Natural gas—*$/Mcf*	$3.45
Wellhead value of 1983 production: *thous.*	
Crude oil	$3,216,659
Natural gas	$1,474,573
Crude oil wellhead value all time to 12/31/83—*thous.*	$28,519,700
Rank among principal minerals and percentage of total value:	
Crude oil—1st	48%
Natural gas—2nd	22%
Severance and production taxes paid in 1983—*local and state*	$381,418,027
Number of employees in oil and gas production in 1983	196,551

1983 INDUSTRY STATISTICS

Seismic crew months worked 323
Rotary drilling rigs active—*average* 96

Number of wells drilled:

	Wildcat	Development	Total
Oil	53	652	**705**
Gas	24	129	**153**
Dry	362	198	**560**
Service	—	74	**74**
Total	**439**	**1,053**	**1,492**

Total footage drilled:

(thous. ft.)	Wildcat	Development	Total
Oil	483.8	3,384.8	**3,868.6**
Gas	273.5	1,280.3	**1,553.8**
Dry	2,800.1	1,124.0	**3,924.1**
Service	—	189.3	**189.3**
Total	**3,557.4**	**5,978.4**	**9,535.8**

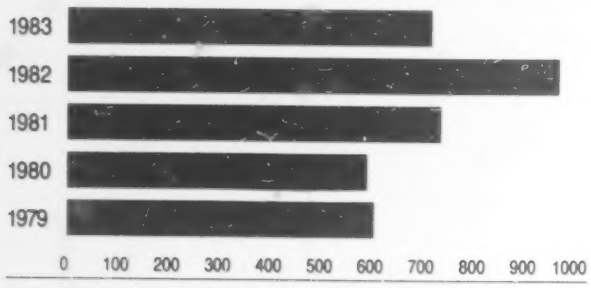
Number of new-field wildcats drilled 348

State-wide rank in:	Crude Oil	Natural Gas
Total wells	11th	14th
Production	6th	6th
Reserves *(1982)*	6th	6th

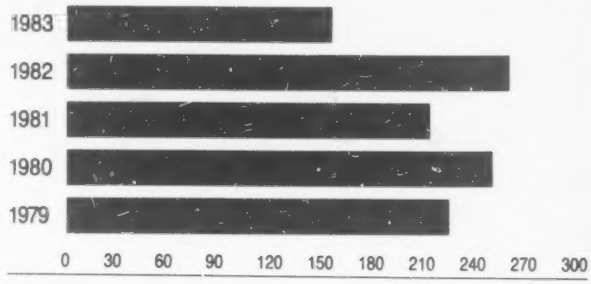
Number of producing wells: *Dec. 31*
Crude oil 11,349
Natural gas and distillate 1,919
Total 13,268
Percentage of wells on artificial lift 93%

Average daily production:
Crude oil—*bbls.* 324,118
NGL—*bbls.* 50,000
Total liquids—*bbls.* 374,118
Natural gas—*Mcf* 1,170,921

NUMBER OF OIL WELLS DRILLED



NUMBER OF GAS WELLS DRILLED



1982 LATEST DATA

Petroleum reserve position: *12/31/82*

(mill. bbls.)	Crude Oil	NGL	Total
New reserves added	126	25	**151**
Production	110	19	**129**
Net reserve change	16	6	**22**
Proved reserves	856	395	**1,251**

Natural gas reserve position: *12/31/82*

(Bcf)	Associated	Non-Associated	Total Gas
New reserves added	– 95	998	**903**
Production	73	334	**407**
Net reserve change	– 168	664	**496**
Proved reserves	1,060	9,095	**10,155**

Number of producing stripper wells—*Dec. 31* 4,792
Number of stripper well abandonments ..... Unavailable
Crude oil stripper production—*thous. bbls.* 6,354,517
Percentage of oil produced by stripper wells 5%
Stripper well reserves: *thous. bbls.*
Primary 99,105
Secondary 76,550
Total **175,655**

Total drilling costs $1,816,300,860
Cost per well $1,132,357
Cost per foot $154.72

Note: Represents most currently available data.

STATE ENERGY OFFICE

Wyoming Oil and Gas Conservation Commission
123 South Durbin Street
P.O. Box 2640
Casper, WY 82602
Ph. 303-234-7147

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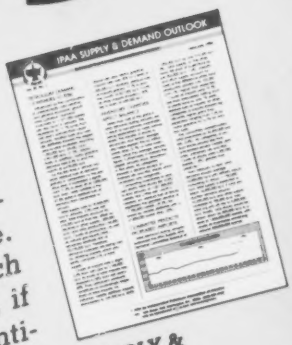

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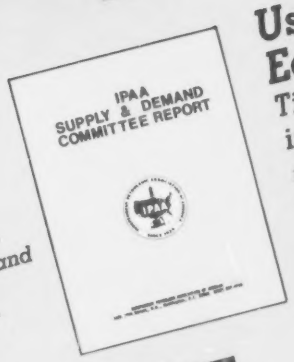
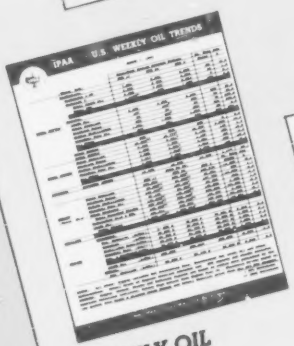
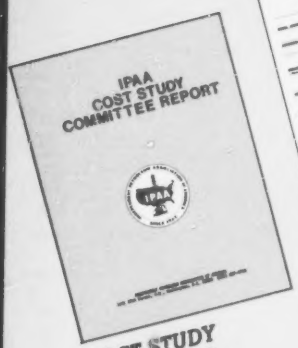


SUPPLY & DEMAND COMMITTEE REPORT
Semiannual economic analysis and forecasts of oil supply and demand.

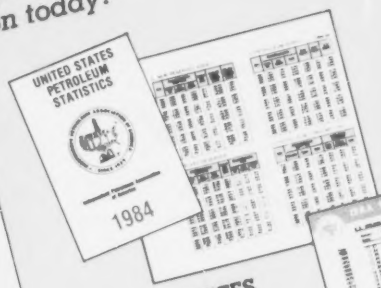


WEEKLY OIL TRENDS
Up-to-the-minute statistics covering the entire U.S. petroleum industry.

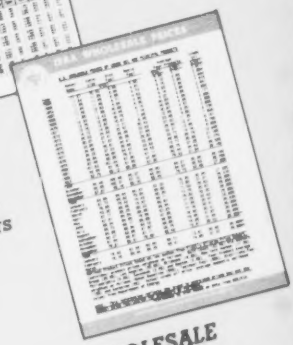


COST STUDY COMMITTEE REPORT
Semiannual economic analysis of oil field costs and drilling.

THE OIL PRODUCING INDUSTRY IN YOUR STATE
Indepth reference book focusing on the 33 oil and gas producing states.



UNITED STATES PETROLEUM STATISTICS
Pocket-sized pamphlet with 20 years of petroleum-related data.



WHOLESALE PRICES
Monthly summary of U.S. wholesale prices of crude oil and principal products.

Independent Petroleum Association of America
1101 16th St., N.W., Wash., D.C. 20036. Attn. Statistics Dept. (202) 857-4760

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____

☐ I am already an IPAA member. Please add my name to your Statistical & Economic mailing list.

☐ Please send a Potential Subscriber packet with a free sample of all publications.

What are you getting in landing nipples? The Otis Original, or a questionable imitation?

Almost every landing nipple manufacturer claims that his products are equal to the latest Otis® design.

But we know better. Because some of those "imitations" have failed when the operator needed them *most* during installation of downhole flow controls.

Only Otis landing nipples undergo *all* of these quality control operations:

- Tolerances maintained in strict accordance with the latest Otis engineering design criteria
- Hardness inspection
- Chemical composition analysis
- Heat number identification
- Visual inspection
- Precise dimensional inspection
- Calibrated thread gauging

Documents and records are available from Otis on landing nipples and/or lock mandrels. This documentation includes:

- Engineering design sheet
- Engineering design sheet drawing
- Engineering material specification sheet
- Basic design and maintenance instructions
- Mill certificate
- Chemical analysis test results
- Dimensional and visual inspection results
- Identification for traceability
- Job history file

OCS Monogrammed. In addition to our standard quality control and documentation, products supplied with the OCS monogram also undergo further testing:

- Every mandrel is installed in and removed from a nipple to verify operating dependability.
- Each size and type mandrel is installed in a nipple and tested to full working pressure.

There is no substitute for functional, precision quality in landing nipples, lock mandrels and related flow equipment. That's why you should specify — *and be sure you get* — Otis landing nipples for your next completion. Otis is the one — and still the only Original.

Otis Engineering Corporation A Halliburton Company

Technology. Quality. Service. Value.

SEISMIC EXPLORATION ACTIVITY

(crew months)	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	71	89	81	13	32	50	126	156	116	105
Alaska	129	101	54	24	16	30	37	82	129	58
Arizona	0	10	0	1	8	54	35	33	9	4
Arkansas	48	25	32	45	48	35	37	67	117	117
California	178	104	109	65	119	122	157	192	221	186
Colorado	76	37	53	42	61	58	87	56	141	176
Florida	71	45	19	17	18	17	21	42	20	37
Illinois	67	23	5	4	3	10	5	9	16	11
Indiana	10	1	1	0	0	0	6	0	1	3
Kansas	34	24	36	28	64	88	76	65	98	75
Kentucky	65	31	11	7	1	7	23	12	4	24
Louisiana	234	272	340	318	560	665	654	501	563	423
Michigan	201	267	266	180	244	111	145	239	159	160
Mississippi	76	160	163	199	173	154	168	175	180	124
Montana	155	40	85	57	155	135	202	388	224	156
Nebraska	0	0	3	5	2	24	13	17	20	14
Nevada	16	16	12	38	45	51	47	41	61	39
New Mexico	133	74	79	53	89	85	120	136	156	116
New York	8	14	15	12	2	2	11	7	7	7
North Dakota	72	34	44	96	269	269	242	268	252	114
Ohio	9	2	2	3	2	1	3	8	3	15
Oklahoma	153	151	90	103	234	240	169	301	256	316
Oregon	0	0	0	9	4	0	9	27	27	13
Pennsylvania	44	32	25	21	41	33	39	49	37	27
South Dakota	30	8	0	1	63	3	2	3	9	14
Tennessee	14	9	5	8	9	26	30	34	24	17
Texas	886	907	914	722	1,095	1,213	1,438	1,745	1,583	1,353
Utah	80	65	65	71	163	106	158	122	127	111
Virginia	8	0	3	0	4	17	24	31	18	9
West Virginia	45	31	13	8	11	15	24	23	9	17
Wyoming	363	353	239	183	211	366	274	317	253	323
Other	11	10	24	28	44	44	42	35	64	63
Undesignated Land	0	114	56	502	95	91	190	240	194	147
Total Land	**3,287**	**3,049**	**2,844**	**2,863**	**3,885**	**4,122**	**4,614**	**5,421**	**5,098**	**4,374**
Marine	376	367	296	200	263	278	348	456	578	569
TOTAL	**3,663**	**3,416**	**3,140**	**3,063**	**4,148**	**4,400**	**4,962**	**5,877**	**5,676**	**4,943**

Source: Society of Exploration Geophysicists

Note: Data excludes gravity, magnetic and other geophysical methods.

ACREAGE UNDER LEASE

(acres)	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	7,351,786	8,985,085	9,186,076	9,297,939	9,416,034
Alaska	3,744,476	3,527,540	4,131,340	5,464,155	10,574,539
Arizona	11,945,400	12,005,400	20,146,200	22,018,200	23,730,680
Arkansas	7,982,000	9,132,700	10,140,960	12,086,910	13,300,000
California	4,040,276	4,106,000	5,055,461	6,018,559	8,565,791
Colorado	34,747,000	31,809,000	30,639,000	31,577,000	35,531,520
Florida	2,805,200	3,005,260	3,715,000	3,755,000	5,130,080
Georgia	†	†	†	1,685,542	1,894,127
Idaho	1,102,654	1,079,064	1,470,375	1,207,728	870,709
Illinois	3,904,720	4,413,000	4,673,000	4,468,000	4,629,000
Indiana	3,725,340	8,778,810	8,832,960	8,848,070	8,963,125
Kansas	12,984,300	13,222,400	13,794,900	16,497,000	18,672,133
Kentucky	4,083,000	4,950,060	5,225,000	5,500,000	5,525,000
Louisiana	14,767,000	15,962,000	16,100,000	13,550,000	13,672,466
Maryland	364,200	449,200	494,200	494,200	524,200
Michigan	10,784,891	12,550,000	14,074,000	14,324,000	14,576,720
Mississippi	7,951,400	7,951,400	11,926,500	11,944,100	11,478,900
Missouri	502,060	504,030	612,298	632,900	712,900
Montana	34,110,000	36,060,000	38,170,000	42,023,000	44,050,200
Nebraska	10,548,000	12,584,000	12,570,000	14,416,000	13,411,080
Nevada	15,718,800	17,855,800	23,554,000	31,646,600	29,852,800
New Mexico	29,350,000	30,130,000	30,020,000	31,413,000	42,524,880
New York	4,975,000	5,500,000	5,710,000	5,850,000	5,900,000
North Carolina	†	†	50,000	50,000	200,000
North Dakota	22,752,000	22,299,000	22,920,000	22,256,000	23,299,820
Ohio	15,428,607	16,527,377	16,520,376	16,448,304	16,443,251
Oklahoma	16,082,700	16,886,900	17,402,000	17,691,600	18,990,000
Oregon	4,500,700	4,001,120	4,001,000	9,001,500	7,001,600
Pennsylvania	16,631,660	17,010,160	17,140,160	17,540,160	17,672,160
South Dakota	6,820,600	7,457,500	8,120,000	7,027,000	10,877,340
Tennessee	5,245,352	6,522,160	8,327,257	8,528,500	9,830,000
Texas	51,669,600	60,074,600	64,350,000	64,723,000	70,300,000
Utah	28,890,800	29,519,000	30,900,000	32,014,000	38,229,686
Virginia	2,023,745	3,053,150	3,456,940	3,158,906	3,376,396
West Virginia	13,542,000	13,934,000	14,134,000	13,447,000	13,757,000
Wyoming	39,597,000	38,765,000	36,850,000	34,227,000	38,999,100
TOTAL	**450,672,267**	**480,610,596**	**514,413,003**	**540,830,873**	**592,483,237**

Source: Various state and industry contacts
†Unavailable

Note: Figures are estimates of both productive and non-productive acreage as of December 31st each year.

ROTARY RIGS ACTIVE

	1974	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	12	14	17	14	13	13	11	17	15	16
Alaska	9	14	14	15	16	14	14	23	22	14
Arizona	1	†	†	†	†	0	1	1	1	†
Arkansas	18	14	15	15	14	10	27	34	27	26
California	72	80	89	90	94	96	120	155	129	106
Colorado	46	43	38	45	41	40	61	82	60	52
Florida	9	9	5	6	6	5	4	8	5	4
Illinois	7	19	22	16	28	13	25	45	76	61
Indiana	1	2	2	3	4	†	†	1	7	6
Kansas	44	57	51	67	76	66	120	196	157	125
Kentucky	2	1	1	2	3	†	2	5	10	8
Louisiana	203	227	231	292	338	347	427	456	343	282
Michigan	24	28	24	24	24	25	31	37	31	29
Mississippi	29	25	32	42	45	40	58	72	42	33
Montana	24	27	28	27	30	33	49	81	36	24
Nebraska	7	9	8	9	10	9	14	15	9	9
Nevada	1	†	2	3	3	4	5	5	3	1
New Mexico	79	71	54	70	76	88	118	135	103	65
New York	7	8	9	7	7	9	7	12	15	10
North Dakota	12	17	19	24	39	56	83	119	69	42
Ohio	30	21	26	33	46	46	74	98	57	40
Oklahoma	146	177	187	233	258	247	397	698	622	285
Oregon	0	†	†	†	†	1	†	2	†	†
Pennsylvania	14	10	10	15	25	29	29	39	33	22
South Dakota	†	1	2	3	2	1	2	2	2	1
Texas	508	637	653	779	855	770	987	1,317	990	797
Utah	42	26	19	30	32	29	42	69	40	37
West Virginia	16	10	12	17	27	30	38	45	49	34
Wyoming	107	107	86	118	136	147	155	191	143	96
Other	2	6	2	2	11	9	8	10	9	7
TOTAL	**1,472**	**1,660**	**1,658**	**2,001**	**2,259**	**2,177**	**2,909**	**3,970**	**3,105**	**2,232**

† *Less than one*
Source: Hughes Tool Company

Notes: Includes offshore rigs
Data represents annual averages.

The world's most modern pipe mill: U.S. Steel's new Fairfield facility.

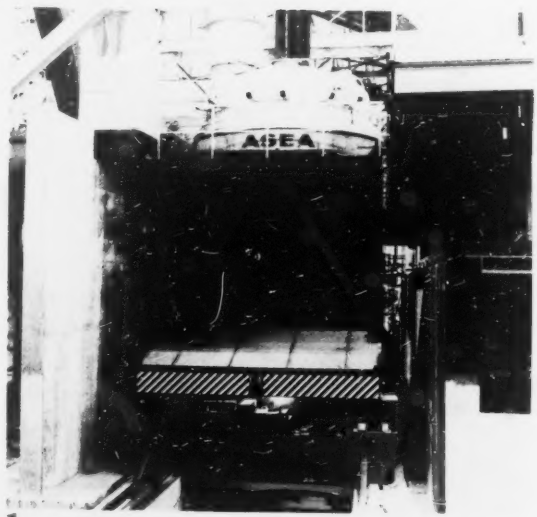
Our new seamless pipe mill at U.S. Steel's Fairfield Works, near Birmingham, Ala., will produce some 600,000 tons per year of world-class quality tubular products.

This new tubular capacity will be primarily devoted to oil country goods, both carbon grades and high strength grades for deep-well/sour-gas applications.

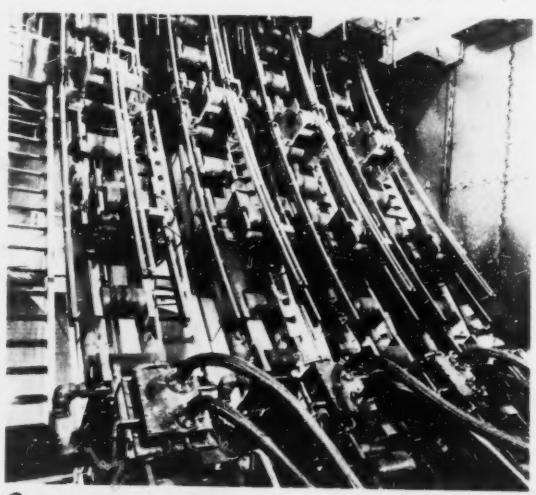
The product's progress through the mill is continuously tracked by seven interfacing computers. These computers control the manufacturing variables at each step of the process, and measure and record all physical dimensions and quality characteristics.

Casing and tubing will be available in sizes from 3½" O.D. through 9⅝" O.D., in grades through 150,000 psi minimum yield strength.

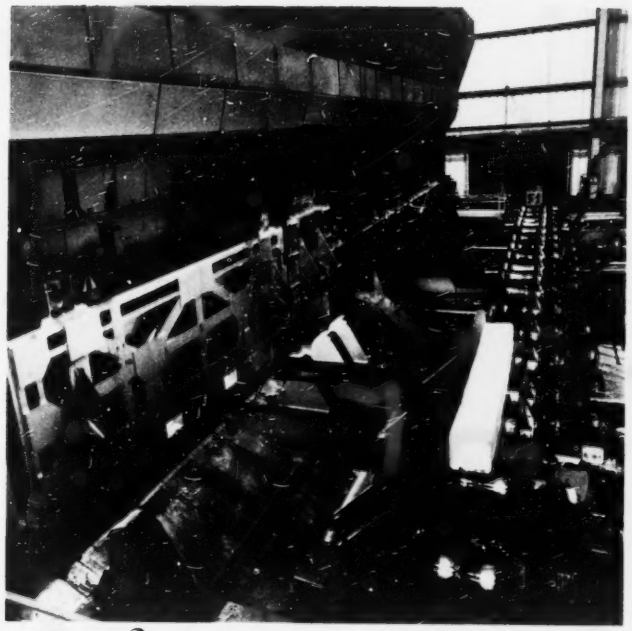
This mill is capable of producing Range 3 lengths in wall thicknesses heavier than present API lists.



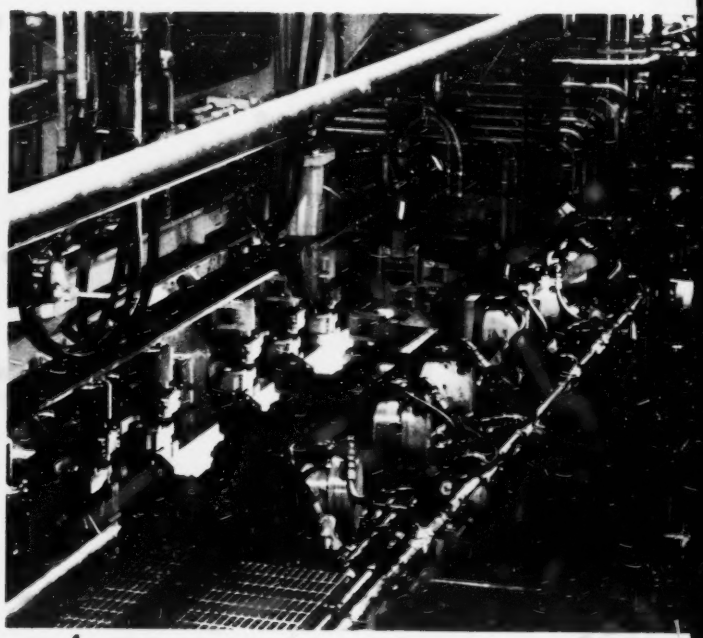
1. To insure the steel cleanliness and controlled residuals that all oil country goods must have, steel is produced in a 3-vessel Q-BOP shop and then further refined in this state-of-the-art ladle-metallurgy facility.



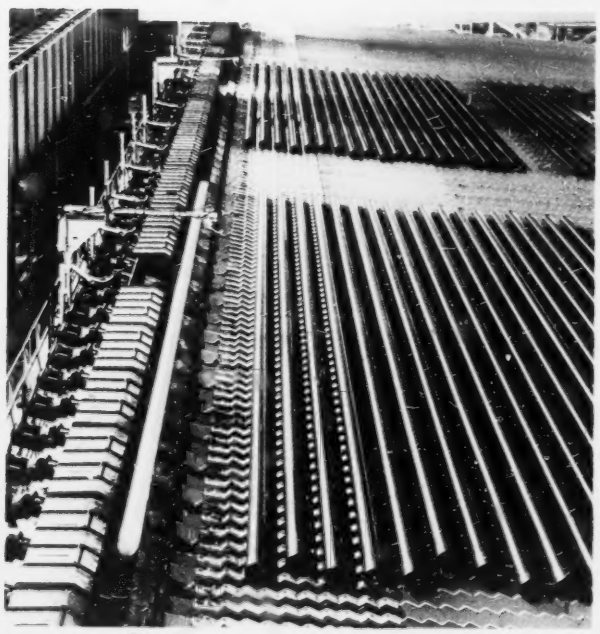
2. This 4-strand, curved-mold continuous caster produces the 10½" square blooms that are the source material for our new press-piercing mill process.



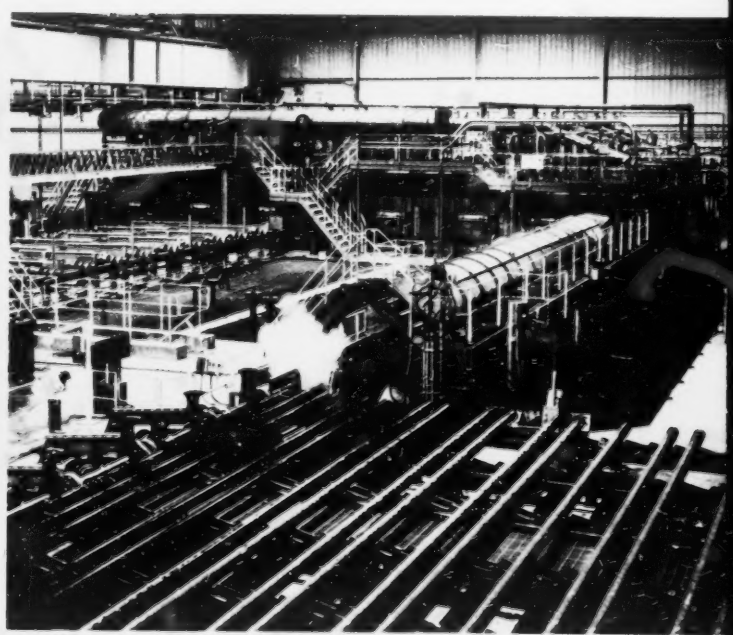
3. After shot-blasting, non-destructive testing and surface grinding, only high-quality blooms are charged into this unique walking-beam furnace, where a temperature uniformity of ± 5°F is maintained in heating each bloom to its rolling temperature.



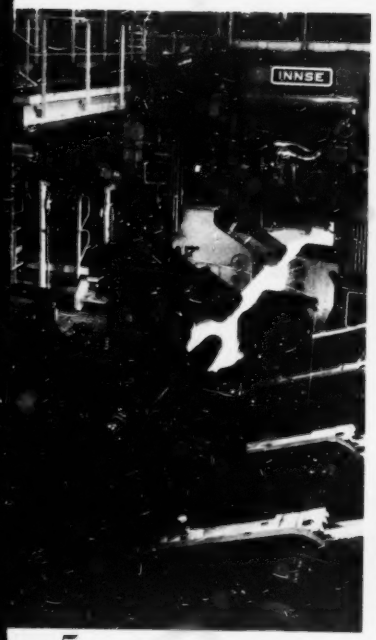
4. At this innovative press-piercing mill, the cast structure of the bloom during piercing is efficiently compacted from the inside by a fixed plug and from the outside by the rolls of a 2-high mill. Because of the optimal metallurgical structure obtained, the resulting tubular product's properties are superior in both the as-rolled and heat-treated condition.



8. Now in lengths up to 325 feet, the pipe air-cools on a walking-beam cooling bed, is cut to required lengths and is inspected by a 4-function, non-destructive testing unit.

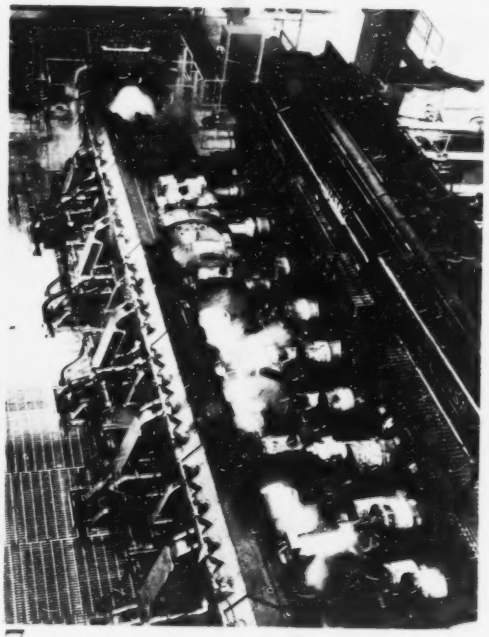


9. To enhance metallurgical and dimensional properties, the heat-treat line includes: an O.D. water spray quench-and-temper system, a 3-stand hot-sizing mill and a hot rotary straightener. Every joint is then tested by another 4-function, non-destructive inspection unit and receives a special end-area inspection.

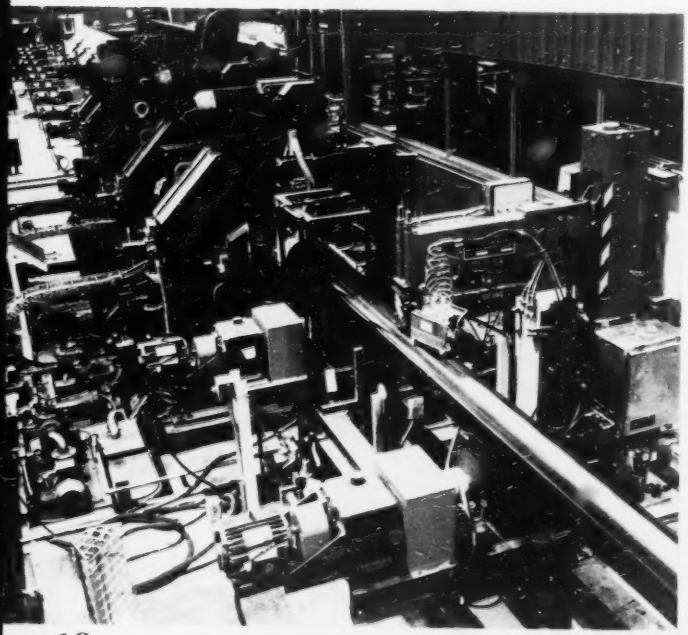


5. Emerging from this elongator mill, where wall thickness is equalized, the lengthened, pierced hollow proceeds to the retained mandrel mill.

6. For superior wall concentricity, beyond current industry standards—plus very smooth internal and external surfaces—the tube hollow is uniformly worked by rolling down onto and off a retained mandrel bar. At this stage of production, lengths up to 120 feet are attainable.



7. This 24-stand stretch-reducing mill precisely and uniformly reduces the O.D. to the optimum size for further processing as heat-treated product, or to the required finished size of as-rolled grades. In either instance, the final product surpasses API tolerance requirements.



10. Prior to threading on precision carbide machines, every length is quality-checked by a 4-function, non-destructive inspection unit and receives another special end-area inspection. Thus all high strength product receives at least two full-length, non-destructive inspections.

Our new Fairfield pipe mill, with its superior technology and quality controls manned by highly trained and experienced personnel, is now at your service to provide world-class quality oil country goods from a domestic source.

It's further proof of U.S. Steel's commitment to meet all of your tubular needs.

USS **Oil Country Goods**

Question: How many gas compressor manufacturers have a 36-month warranty?

A. Hardly any. ☐

B. Almost everybody. ☐

C. Only one.
Ariel Corporation. ☑

Check "C". This is no time for guess work. Here's how it shakes out. Ariel Corporation manufactures reciprocating gas compressors from 10 to 800 BHP. We warrant all parts of our products to be free from defects in material or workmanship under normal use when properly maintained, for eighteen (18) months after shipping date. We also warrant the following parts for thirty-six (36) months after shipping date: 1. Crankshaft. 2. Crankcase Casting. 3. Connecting Rods. 4. Crossheads. 5. Crosshead Guide Castings.

Those are important parts and these are important times for quality decisions. Over the years, Ariel Corporation has set the standard for pride in workmanship and proven product quality. That's common knowledge. This extended warranty just puts our product where our confidence is.

Call us. We're Ariel Corporation. And we're the only one.

ARIEL CORPORATION

Offices in major oil field centers in the U. S. and Canada

Manufacturing: Industrial Park · Mount Vernon, Ohio 43050-9482 · 614-397-0311 · Telex 24-5386
Marketing: P. O. Box 36677 · Houston, Texas 77236-6677 · 713-491-4914 · Telex 79-0043

ARIEL

NEW-FIELD WILDCAT WELLS DRILLED

	1974	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	47	59	63	42	59	90	77	68	70	86
Alaska	7	12	7	14	4	14	14	15	6	2
Arizona	5	2	0	0	4	2	4	6	5	10
Arkansas	88	78	76	78	95	99	109	145	120	145
California	87	64	76	112	110	99	137	129	106	74
Colorado	296	349	310	282	336	280	318	438	429	297
Florida	30	25	13	12	15	14	5	9	11	14
Illinois	103	106	86	51	77	49	99	123	197	281
Indiana	102	68	86	67	103	64	103	95	112	124
Kansas	285	274	306	298	284	380	379	386	443	319
Kentucky	93	153	113	84	57	81	62	51	99	206
Louisiana	465	521	425	496	555	542	669	789	673	533
Maryland	1	0	0	0	0	0	0	0	0	1
Michigan	251	270	279	326	265	239	317	381	423	323
Mississippi	258	226	232	247	243	232	254	337	281	266
Missouri	24	16	8	9	7	9	7	15	15	5
Montana	316	286	234	230	237	218	282	325	316	145
Nebraska	145	182	159	204	201	235	274	253	223	171
Nevada	2	4	7	10	13	9	12	20	21	8
New Mexico	192	156	138	114	125	155	225	195	246	130
New York	37	12	37	39	30	22	7	41	12	7
North Dakota	59	88	79	73	128	99	174	282	308	110
Ohio	11	5	14	11	3	18	1	8	20	40
Oklahoma	198	191	201	210	210	185	173	244	242	202
Oregon	0	0	0	2	0	10	18	17	2	0
Pennsylvania	16	27	15	29	24	14	23	19	19	14
South Dakota	9	21	26	18	16	28	14	40	33	45
Tennessee	47	85	93	74	85	60	136	140	184	510
Texas	1,980	2,325	2,325	2,460	2,708	2,726	2,690	2,854	2,586	1,909
Utah	47	59	34	79	65	66	61	114	123	99
Virginia	1	2	1	0	2	4	1	3	16	14
Washington	0	0	3	4	0	0	0	0	6	2
West Virginia	19	25	24	21	19	23	15	25	45	6
Wyoming	402	376	335	382	402	306	344	455	486	348
Other	20	6	6	2	6	2	6	8	7	2
Total Land	**5,643**	**6,073**	**5,811**	**6,080**	**6,488**	**6,374**	**7,010**	**8,030**	**7,885**	**6,448**
Federal Waters	9	31	29	21	17	39	24	22	27	39
TOTAL	**5,652**	**6,104**	**5,840**	**6,101**	**6,505**	**6,413**	**7,034**	**8,052**	**7,912**	**6,487**

Source: American Petroleum Institute

Note: Includes oil wells, gas wells and dry holes.

The catalyst.

Deposit Guaranty's Energy Department is the catalyst that helps spark petroleum development in Mississippi. This department is one of the oldest, largest and most aggressive of its kind in the Southeast.

We're staffed with industry-trained petroleum engineers and experienced commercial lending officers who are here to provide specialized banking services for the oil and gas industry throughout Mississippi and the South .... helping Mississippi business and industry grow with us.

DEPOSIT GUARANTY
NATIONAL BANK Member F.D.I.C.
Energy Department
(601) 354-8229

ENERGY CONSUMPTION

	Crude Oil and NGL	Natural Gas	Total Energy
	(Quadrillion BTU)		
1949	11.88	5.15	31.08
1950	13.32	5.97	33.62
1951	14.43	7.05	36.11
1952	14.96	7.55	35.83
1953	15.56	7.91	36.76
1954	15.84	8.33	35.73
1955	17.25	9.00	39.17
1956	17.94	9.61	40.75
1957	17.93	10.19	40.80
1958	18.53	10.66	40.65
1959	19.32	11.72	42.41
1960	19.92	12.39	43.75
1961	20.22	12.93	44.41
1962	21.05	13.73	46.48
1963	21.70	14.40	48.27
1964	22.30	15.29	50.44
1965	23.25	15.77	52.62
1966	24.40	17.00	55.59
1967	25.28	17.94	57.50
1968	26.98	19.21	60.94
1969	28.34	20.68	64.12
1970	29.52	21.79	66.36
1971	30.56	22.47	67.82
1972	32.95	22.70	71.19
1973	34.84	22.51	74.21
1974	33.45	21.73	72.48
1975	32.73	19.95	70.48
1976	35.17	20.35	74.30
1977	37.12	19.93	76.21
1978	37.97	20.00	78.04
1979	37.12	20.67	78.84
1980	34.20	20.39	75.90
1981	31.93	19.93	73.94
1982	30.23	18.51	70.82
1983	29.98	17.43	70.45

Source: Energy Information Administration

VALUE OF U.S. FOSSIL FUEL PRODUCTION

(billion $)	Crude Oil	Natural Gas	Coal and Lignite	Anthracite	Total
1977	25.79	15.82	13.70	0.20	55.51
1978	28.60	18.18	14.49	0.18	61.45
1979	39.45	24.16	18.36	0.20	82.17
1980	67.93	32.09	20.20	0.26	120.48
1981	99.40	39.51	21.51	0.24	160.66
1982	90.03	45.56	22.62	0.23	158.44
1983	82.36	43.11	21.86	0.21	147.54

Source: U.S. Energy Information Administration

Gas Compressors
10-800 BHP

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- Direct-connected

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DRILLING COSTS

	Total Costs	Per Well	Per Foot
	(thous. $)	($)	
1964	2,427,367	55,820	12.86
1965	2,407,437	60,648	13.44
1966	2,360,740	68,386	14.95
1967	2,299,178	72,902	15.97
1968	2,409,360	81,463	16.83
1969	2,610,671	88,554	17.56
1970	2,578,682	94,885	18.84
1971	2,371,492	94,703	19.03
1972	2,814,166	106,424	20.76
1973	3,074,532	117,152	22.50
1974	4,366,989	138,718	28.93
1975	6,571,214	177,793	36.99
1976	7,461,680	191,615	40.46
1977	9,956,453	229,181	46.82
1978	13,061,000	279,950	56.64
1979	16,078,930	331,367	67.71
1980	22,800,356	367,682	77.03
1981	36,665,457	453,691	94.30
1982	39,428,119	514,378	108.73

Source: Joint Association Survey
Note: 1983 data unavailable

COST INDICES

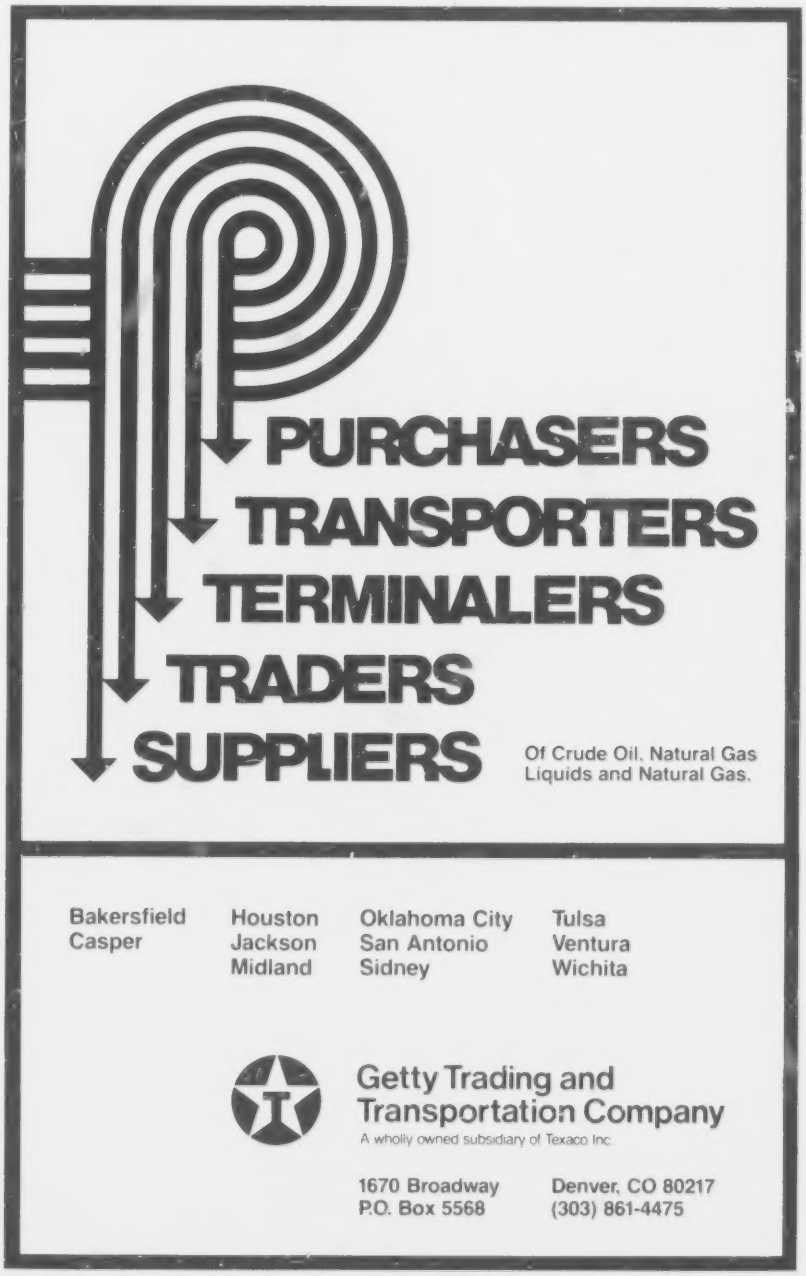
	Oil Field Machinery	Oil Well Casing	Line Pipe (carbon)	Oil Field Wages
	(1967 = 100)			
1964	94.8	91.9	103.6	90.8
1965	95.2	96.2	97.9	93.2
1966	96.5	96.2	97.9	96.2
1967	100.0	100.0	100.0	100.0
1968	106.4	101.5	103.9	104.3
1969	112.7	104.5	109.2	110.8
1970	118.4	109.1	112.8	117.9
1971	122.6	120.7	124.7	127.7
1972	127.3	127.3	133.7	139.1
1973	133.2	133.2	139.1	147.4
1974	157.8	170.7	189.8	163.1
1975	196.3	211.5	227.8	184.9
1976	217.7	223.1	234.6	203.4
1977	236.6	244.3	260.5	220.3
1978	261.6	271.6	296.6	247.7
1979	289.7	285.8	303.4	270.2
1980	335.7	326.5	336.3	298.5
1981	401.0	407.5	394.2	331.7
1982	434.5	451.9	417.0	363.7
1983	428.4	406.1	405.6	381.2

Source: U.S. Bureau of Labor Statistics

DRILLING SUMMARY — 1982

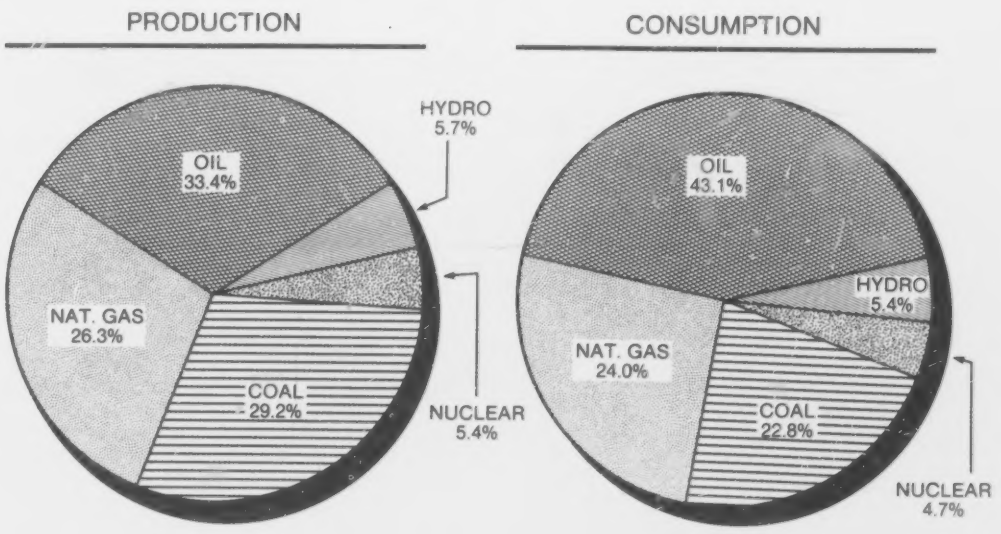
	Oil Wells	Gas Wells	Dry Holes	Total Wells
Number of Wells Drilled	35,865	17,052	23,735	76,652
Footage Drilled *(thous.)*	144,305	100,804	117,510	362,618
Total Cost *(million $)*	12,459	14,738	12,232	39,428
Average Depth *(ft.)*	4,024	5,912	4,951	4,731
Average Cost per Well *($)*	347,374	864,278	515,352	514,378
Average Cost per Foot *($)*	86.34	146.20	104.09	108.73

Source: Joint Association Survey
Note: Includes all costs incurred through Christmastree.



U.S. ENERGY

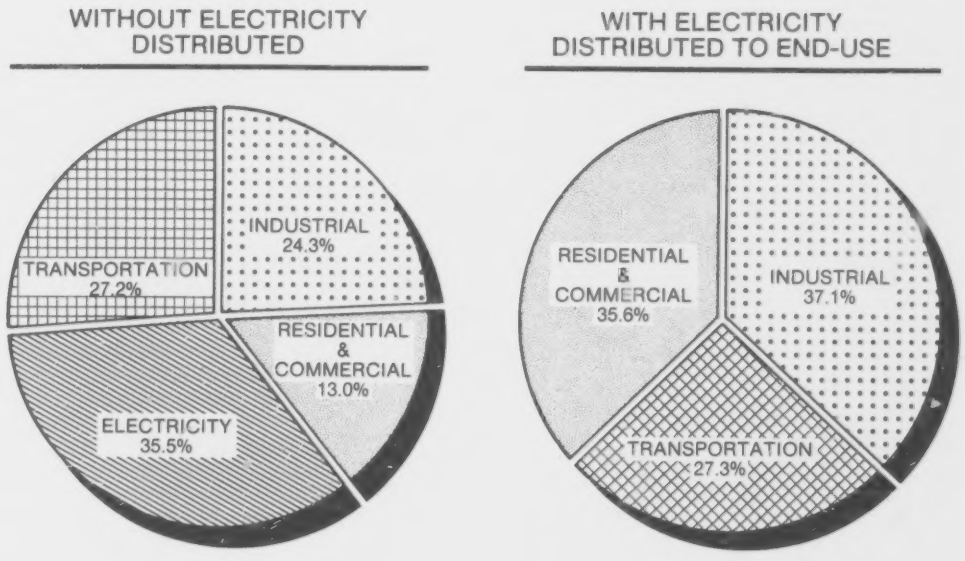
CHART A



Source: U.S. Department of Energy

CONSUMPTION OF ENERGY BY END-USE SECTOR

CHART B



Source: U.S. Department of Energy

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EXPLORATORY WELLS DRILLED

	1974	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	58	65	69	44	63	97	80	76	70	86
Alaska	12	21	7	19	8	14	14	20	8	3
Arizona	5	2	0	0	4	2	4	6	6	10
Arkansas	90	78	76	86	95	105	111	153	127	152
California	235	205	233	296	370	363	410	492	489	222
Colorado	338	413	372	383	463	439	487	737	743	510
Florida	30	27	14	12	16	15	5	9	11	14
Illinois	220	254	247	241	265	233	444	663	648	639
Indiana	168	156	195	277	267	186	324	348	449	456
Kansas	847	879	914	980	1,107	1,078	1,097	1,492	2,110	1,559
Kentucky	184	313	373	365	351	354	447	508	821	973
Louisiana	646	708	611	645	781	678	798	957	825	574
Michigan	258	272	282	329	266	246	321	381	423	323
Mississippi	292	263	266	260	247	244	280	342	282	266
Missouri	24	16	8	9	7	15	15	34	92	50
Montana	381	379	321	319	308	298	374	432	427	191
Nebraska	155	202	188	232	221	258	293	263	227	173
Nevada	2	4	7	14	13	10	12	20	24	9
New Mexico	209	170	172	172	174	201	292	294	352	218
New York	49	21	52	50	47	51	20	108	44	43
North Dakota	74	109	116	106	163	144	242	377	448	205
Ohio	172	121	171	125	40	125	60	102	146	183
Oklahoma	396	394	434	473	502	484	508	651	682	647
Oregon	0	0	0	2	0	17	22	30	8	0
Pennsylvania	101	109	71	93	96	68	131	405	214	121
South Dakota	9	22	27	22	17	34	17	42	35	48
Tennessee	85	143	165	156	151	94	188	188	244	643
Texas	2,907	3,203	3,269	3,549	3,884	4,011	4,274	5,102	5,464	4,822
Utah	56	66	39	94	79	86	91	173	172	136
Virginia	8	8	3	9	5	4	1	3	29	15
Washington	0	0	3	0	0	0	0	0	6	2
West Virginia	102	91	99	108	165	108	112	155	157	114
Wyoming	470	461	395	465	477	379	412	575	665	439
Other	22	7	6	2	6	2	10	8	7	13
Total Land	**8,605**	**9,182**	**9,205**	**9,937**	**10,658**	**10,443**	**11,896**	**15,146**	**16,455**	**13,850**
Federal Waters	14	32	29	24	19	41	20	22	27	40
TOTAL	**8,619**	**9,214**	**9,234**	**9,961**	**10,677**	**10,484**	**11,916**	**15,168**	**16,482**	**13,890**

Source: American Petroleum Institute

Note: Includes oil wells, gas wells and dry holes.

TOTAL WELLS DRILLED

	1974	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	98	110	133	133	169	214	189	212	207	190
Alaska	38	67	81	72	72	73	130	141	203	168
Arizona	11	3	0	0	7	8	4	7	16	16
Arkansas	320	329	440	495	450	505	612	887	796	860
California	2,153	2,615	2,540	2,917	2,475	2,150	2,659	3,224	3,147	3,163
Colorado	843	1,198	1,052	1,211	1,224	1,036	1,253	1,707	1,990	1,467
Florida	48	47	30	29	29	41	12	23	25	24
Illinois	823	1,041	1,527	1,174	1,167	1,208	2,127	3,282	3,142	2,753
Indiana	390	400	507	624	683	500	746	831	1,051	1,027
Kansas	2,825	3,398	3,977	3,933	4,322	4,306	5,161	6,865	9,166	7,406
Kentucky	697	973	1,094	1,039	961	986	1,294	1,780	3,109	3,278
Louisiana	2,830	3,098	3,476	3,398	3,767	4,078	4,956	5,573	5,060	4,575
Michigan	414	519	522	600	521	527	682	766	810	823
Mississippi	450	453	469	540	489	544	631	758	622	573
Missouri	101	92	45	54	49	81	31	223	469	284
Montana	673	913	674	761	673	750	882	1,064	1,204	570
Nebraska	230	345	323	424	384	453	538	607	453	355
Nevada	2	4	7	19	16	16	13	24	29	9
New Mexico	1,142	1,247	1,006	1,350	1,583	1,607	1,966	2,451	2,298	1,601
New York	348	437	596	538	482	428	494	581	525	483
North Dakota	128	213	234	225	327	364	586	743	816	537
Ohio	1,790	1,223	1,919	2,593	2,606	3,492	3,269	5,455	4,515	6,098
Oklahoma	3,189	3,796	4,393	4,976	5,859	6,362	9,073	11,329	12,012	10,343
Oregon	0	0	0	2	0	21	31	30	8	0
Pennsylvania	1,322	1,496	1,311	1,462	1,748	1,941	2,020	3,554	4,224	2,531
South Dakota	11	28	32	41	45	50	41	79	70	80
Texas	9,808	12,483	12,740	14,759	15,037	16,149	19,253	23,940	26,849	24,616
Utah	196	196	126	277	277	255	280	421	551	421
Virginia	61	36	11	25	31	25	14	41	99	37
West Virginia	780	794	956	1,213	1,404	1,474	1,717	1,882	2,045	2,025
Wyoming	1,001	1,301	975	1,307	1,395	1,335	1,407	1,705	2,122	1,492
Other	157	210	219	246	231	238	350	323	415	933
Total Land	**32,879**	**39,065**	**41,415**	**46,437**	**48,483**	**51,217**	**62,421**	**80,508**	**88,048**	**78,438**
Federal Waters	14	32	30	42	30	46	41	29	58	104
TOTAL	**32,893**	**39,097**	**41,445**	**46,479**	**48,513**	**51,263**	**62,462**	**80,537**	**88,106**	**78,542**

Source: American Petroleum Institute

Note: Includes oil, gas and service wells, dry holes, stratigraphic and core tests.

WORLD CRUDE OIL RESERVES

(mill. bbls.)	United States	Canada	Latin America	Middle East	Africa	Asia	Western Europe	Communist Nations	Total World
1974	35,300	7,674	31,640	350,163	67,304	15,635	15,991	103,000	626,705
1975	34,250	7,171	40,578	403,858	68,300	21,048	25,814	111,400	712,419
1976	32,682	6,653	35,368	368,411	65,085	21,234	25,488	103,000	657,921
1977	30,942	6,247	29,609	367,681	60,570	19,391	24,539	101,100	640,090
1978	29,486	5,971	40,270	366,166	59,200	19,749	26,863	98,000	645,805
1979	27,804	6,860	41,247	369,996	57,892	20,007	23,966	94,000	641,772
1980	27,051	6,800	56,473	361,947	57,072	19,355	23,476	90,000	642,175
1981	29,805	6,400	69,490	362,071	55,148	19,631	23,085	86,300	651,930
1982	29,426	7,300	84,982	362,840	56,172	19,151	24,635	85,845	670,350
1983	29,858	7,020	78,482	369,286	57,822	19,756	22,924	85,115	668,262

Sources: American Petroleum Institute and U.S. Energy Information Administration

Note: Totals may not add due to rounding.

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CRUDE OIL PRODUCTION BY CHASE GROUP OF COMPANIES

	Chase Group	*All Other*	*Total Crude Production*
	(%)		*(thous. b/d)*
1949	61.8	38.2	5,046
1950	59.5	40.5	5,407
1951	60.1	39.9	6,158
1952	60.4	39.6	6,256
1953	63.9	36.1	6,458
1954	62.4	37.6	6,342
1955	61.3	38.7	6,807
1956	61.6	38.4	7,151
1957	62.6	37.4	7,170
1958	61.7	38.3	6,710
1959	62.1	37.9	7,054
1960	62.9	37.1	7,035
1961	62.8	37.2	7,183
1962	64.2	35.8	7,332
1963	65.0	35.0	7,542
1964	65.9	34.1	7,614
1965	67.5	32.5	7,804
1966	67.8	32.2	8,295
1967	68.9	31.1	8,810
1968	69.4	30.6	9,096
1969	69.5	30.5	9,238
1970	70.7	29.3	9,637
1971	71.3	28.7	9,463
1972	71.3	28.7	9,441
1973	71.3	28.7	9,208
1974	70.4	29.6	8,774
1975	70.3	29.7	8,375
1976	68.7	31.3	8,132
1977	68.8	31.2	8,245
1978	71.1	28.9	8,[illegible]
1979	69.5	30.5	8,552
1980	70.6	29.4	8,597
1981	69.2	30.8	8,572
1982	69.3	30.7	8,649
Excluding North Slope			
1977	67.5	32.5	7,934
1978	67.0	33.0	7,617
1979	64.1	35.9	7,269
1980	64.3	35.7	7,080
1981	62.5	37.5	7,048
1982	62.2	37.8	7,028

Source: Chase Manhattan Bank
Note: 1983 data unavailable.

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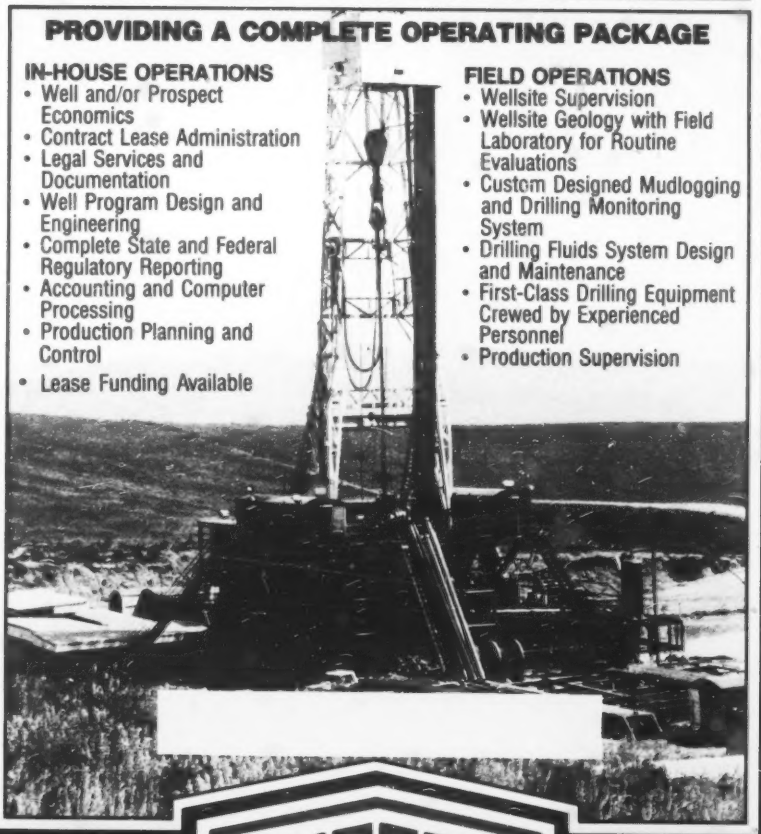

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	No. of Wells Drilled	*Footage Drilled (ft.)*	*Total Cost ($)*	*Depth per Well (ft.)*	*Cost per Well ($)*	*Cost per Foot ($)*
Alabama	194	1,211,811	182,563,538	6,246	941,049	150.65
Alaska						
Onshore	190	1,898,989	786,968,932	9,995	4,141,942	414.42
Offshore	3	32,788	29,957,960	10,929	9,985,987	913.69
Total	193	1,931,777	816,926,892	10,009	4,232,782	422.89
Arkansas	811	4,004,951	272,573,898	4,938	336,096	68.06
California						
North	229	1,484,517	124,393,775	6,483	543,204	83.79
Central Coastal	222	1,117,350	182,876,965	5,033	823,770	163.67
East Central	1,930	5,117,410	569,993,533	2,652	295,333	111.38
South	148	660,273	97,301,841	4,461	657,445	147.37
Offshore	174	1,103,979	437,846,969	6,345	2,516,362	396.61
Total	2,703	9,483,529	1,412,413,083	3,509	522,535	148.93
Colorado	1,769	10,006,502	677,475,562	5,657	382,971	67.70
Florida	20	267,450	40,423,095	13,373	2,021,155	151.14
Illinois	2,856	7,671,190	239,164,565	2,686	83,741	31.18
Indiana	1,012	1,960,915	57,603,679	1,938	56,921	29.38
Kansas	7,667	24,842,382	781,034,042	3,240	101,870	31.44
Kentucky	2,763	4,054,117	140,949,811	1,467	51,013	34.77
Louisiana						
North	3,135	11,170,014	609,058,034	3,563	194,277	54.53
South	1,307	14,807,714	5,264,931,869	11,330	2,498,035	220.49
Offshore	900	9,515,734	3,676,115,084	10,573	4,084,572	386.32
Total	5,342	35,493,462	7,550,104,937	6,644	1,413,348	212.72
Michigan	851	3,855,236	282,518,553	4,530	331,984	73.28
Mississippi	593	5,334,729	604,126,091	8,996	1,018,762	113.24
Montana	800	3,906,584	377,115,272	4,883	471,394	96.53
Nebraska	408	1,861,729	57,911,981	4,563	141,941	31.11
New Mexico						
East	1,365	8,273,646	918,200,667	6,061	672,675	110.98
West	637	3,283,544	254,826,827	5,155	400,042	77.61
Total	2,002	11,557,190	1,173,027,494	5,773	585,928	101.50
North Dakota	700	7,001,846	878,100,864	10,003	1,254,430	125.41
Oklahoma	10,312	56,632,975	7,558,647,628	5,492	732,995	133.47
Texas						
District 1	2,262	6,936,198	448,382,648	3,066	198,224	64.64
2	798	5,797,092	680,651,353	7,265	852,947	117.41
3	1,978	16,265,146	1,845,841,442	8,223	933,186	113.48
4	1,278	10,156,789	1,412,815,723	7,947	1,105,490	139.10
5	712	2,987,598	359,948,480	4,196	505,546	120.48
6	1,195	9,477,107	1,081,528,168	7,931	905,045	114.12
7B	4,292	13,272,269	537,261,760	3,092	125,177	40.48
7C	2,111	11,625,610	712,267,417	5,507	337,408	61.27
8	2,567	15,122,523	1,548,533,099	5,891	603,246	102.40
8A	1,907	11,207,997	703,431,662	5,877	368,868	62.76
9	3,736	12,644,369	548,668,183	3,384	146,860	43.39
10	1,138	6,678,192	678,831,901	5,868	596,513	101.65
Offshore	300	2,903,503	1,455,201,108	9,678	4,850,671	501.19
Total	24,274	125,074,393	12,013,362,944	5,153	494,907	96.05
Utah	434	2,870,645	578,440,369	6,614	1,332,812	201.50
Wyoming	1,604	11,739,378	1,816,300,860	7,319	1,132,357	154.72
Appalachian	8,467	29,093,342	1,161,134,621	3,436	137,126	39.91
Other	790	1,780,988	201,499,572	2,254	255,063	113.14
Total Land	**76,565**	**361,637,121**	**38,873,419,401**	**4,723**	**507,718**	**107.49**
Federal Waters	87	981,048	554,699,167	11,276	6,375,853	565.42
Alaska	2	26,524	31,271,628	13,262	15,635,814	1,178.99
Atlantic Coast	5	85,180	123,009,697	17,036	24,601,939	1,444.12
Gulf of Mexico—North	75	841,108	349,261,532	11,215	4,656,821	415.24
Pacific	5	28,236	51,156,310	5,647	10,231,262	1,811.74
TOTAL	**76,652**	**362,618,169**	**39,428,118,568**	**4,731**	**514,378**	**108.73**

Source: Joint Association Survey
Notes: All figures are estimates.

The last 3 columns represent averages.
1983 data unavailable.

STRIPPER WELL CRUDE OIL PRODUCTION

(thous. bbls.)	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Alabama	46	87	117	162	139	121	144	125	122	158
Arizona	0	4	5	6	7	5	5	16	23	24
Arkansas	6,659	6,748	5,044	5,199	6,172	7,754	7,231	5,690	5,465	5,132
California	61,452	77,497	60,574	52,246	51,410	49,558	45,521	44,110	54,804	55,419
Colorado	1,920	1,830	1,953	2,013	2,017	2,018	1,955	1,989	2,159	2,204
Illinois	28,827	26,024	25,215	24,936	23,614	21,160	20,325	20,167	22,238	23,989
Indiana	5,254	4,920	4,032	4,471	5,255	4,560	4,557	4,019	4,781	4,568
Kansas	45,949	44,615	43,707	44,433	44,190	44,461	43,948	44,545	45,010	47,629
Kentucky	7,314	6,464	6,183	6,173	5,421	4,713	4,549	4,573	4,479	5,144
Louisiana	7,325	7,502	7,574	8,176	7,740	7,916	7,681	7,657	9,012	9,172
Michigan	4,863	4,883	4,760	4,602	6,233	5,602	5,621	4,717	2,449	2,820
Mississippi	438	572	649	1,215	1,349	1,234	1,601	1,890	3,805	2,237
Missouri	60	56	57	60	60	53	54	127	226	53
Montana	2,144	2,024	3,579	2,947	3,255	2,805	2,830	2,710	2,748	2,881
Nebraska	1,196	1,379	1,545	1,758	2,012	2,025	1,866	2,237	2,510	2,879
Nevada	0	0	0	0	0	0	0	9	0	0
New Mexico	10,224	10,835	11,083	11,141	11,547	11,831	12,068	12,924	13,463	14,207
New York	969	896	875	857	813	852	855	824	849	719
North Dakota	854	934	930	1,075	1,146	1,197	1,250	1,225	1,386	1,493
Ohio	6,157	6,362	6,705	6,996	7,251	7,808	8,367	9,050	9,486	10,199
Oklahoma	74,110	73,695	72,531	73,459	74,400	74,175	76,001	79,945	83,249	94,237
Pennsylvania	3,282	3,399	3,199	2,950	2,659	2,565	2,817	2,651	3,606	3,718
South Dakota	27	21	18	21	15	17	22	25	39	55
Tennessee	45	108	126	140	194	270	388	293	291	†
Texas	112,247	126,387	126,018	129,700	127,886	131,211	136,590	141,825	145,940	143,929
Utah	132	124	98	262	136	135	180	220	377	†
Virginia	0	3	3	3	2	2	4	10	13	49
West Virginia	2,407	2,673	2,478	2,400	2,384	2,255	2,382	2,313	2,607	2,683
Wyoming	1,785	1,898	5,107	4,791	5,225	5,333	5,597	5,211	5,367	6,355
TOTAL	**385,684**	**411,936**	**394,163**	**392,191**	**392,532**	**391,633**	**394,405**	**401,095**	**426,502**	**441,951**

NUMBER OF PRODUCING STRIPPER WELLS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Alabama	39	44	75	71	78	69	78	68	73	92
Arizona	1	4	6	7	7	7	8	10	12	14
Arkansas	6,201	6,094	6,100	6,025	6,736	6,822	6,767	6,820	5,847	5,167
California	31,466	34,559	32,124	29,983	28,328	24,198	25,957	25,400	26,566	26,354
Colorado	867	818	881	942	990	1,016	1,074	1,143	1,255	1,354
Illinois	23,960	23,279	23,222	23,275	23,499	23,622	23,860	24,501	25,472	26,813
Indiana	4,251	3,962	4,654	4,853	5,056	5,038	5,092	5,022	5,874	5,353
Kansas	40,176	40,105	40,597	41,764	42,273	43,154	44,686	41,876	42,924	44,521
Kentucky	14,201	13,914	13,690	13,817	14,046	13,953	14,028	14,075	14,130	14,275
Louisiana	12,649	12,808	12,723	13,185	13,189	13,600	12,131	15,889	15,950	12,010
Michigan	3,356	3,370	3,330	3,260	3,276	3,331	3,405	3,325	3,057	3,361
Mississippi	217	278	310	617	654	657	813	1,523	2,138	1,923
Missouri	137	157	163	173	161	144	157	301	440	530
Montana	1,295	1,338	1,873	1,918	1,945	1,983	1,996	2,082	2,058	2,243
Nebraska	526	577	638	812	919	987	1,037	1,223	1,414	1,585
Nevada	0	0	0	0	0	0	0	4	0	0
New Mexico	9,458	9,991	10,274	10,544	10,956	11,401	11,829	12,519	13,226	13,882
New York	5,282	4,828	5,231	4,916	4,913	4,700	5,000	5,220	5,345	5,259
North Dakota	635	529	559	655	687	741	782	878	836	959
Ohio	14,906	15,406	15,482	15,586	16,122	17,006	18,222	19,650	21,982	22,966
Oklahoma	57,000	59,817	58,736	53,357	56,239	59,971	64,893	66,128	69,781	73,328
Pennsylvania	31,539	32,095	31,661	31,274	28,400	27,768	27,925	25,991	25,285	23,438
South Dakota	12	8	9	10	16	11	10	12	23	33
Tennessee	53	99	133	159	213	265	318	387	398	†
Texas	82,302	87,412	89,027	91,498	92,887	96,713	98,487	103,594	107,596	111,671
Utah	84	74	48	77	74	95	106	125	196	†
Virginia	0	3	7	7	4	5	7	8	12	20
West Virginia	13,500	13,600	13,680	13,800	13,875	13,925	14,000	14,150	14,300	14,550
Wyoming	1,116	926	2,629	3,148	3,387	3,453	3,642	3,252	3,349	4,792
TOTAL	**355,229**	**366,095**	**367,872**	**365,733**	**368,930**	**374,635**	**386,310**	**395,176**	**409,539**	**416,493**

Sources: Interstate Oil Compact Commission
National Stripper Well Association

† Not available
Note: Totals may not add due to rounding.

CRUDE OIL PRODUCTION

(thous. bbls.)	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	13,323	13,477	14,706	18,252	19,829	19,161	22,153	20,680	20,014	18,746
Alaska	70,603	69,834	63,398	169,201	448,620	511,335	591,646	587,337	618,910	625,527
Arizona	740	635	519	427	418	472	406	357	335	237
Arkansas	16,527	16,133	18,097	20,202	20,329	18,869	18,210	18,352	18,849	18,849
California	323,003	322,199	326,021	349,609	347,181	352,268	356,923	384,958	401,572	404,688
Colorado	37,508	38,089	38,992	39,460	36,797	32,324	29,802	30,303	30,545	29,050
Florida	36,351	41,877	44,460	46,641	47,536	47,168	42,886	34,773	25,626	19,476
Illinois	27,553	26,067	26,272	25,608	23,362	21,793	22,702	24,090	27,710	29,200
Indiana	4,919	4,632	4,630	5,314	4,689	4,715	4,978	4,721	5,563	5,321
Kansas	61,691	59,106	58,714	57,496	56,586	56,995	60,151	65,810	70,525	71,594
Kentucky	7,837	7,556	7,483	6,581	5,724	5,514	5,946	6,548	7,349	7,886
Louisiana	737,324	650,840	606,501	562,905	532,740	489,687	469,141	449,315	458,395	479,569
Michigan	18,021	24,420	30,421	32,965	34,667	34,862	33,808	32,665	31,462	31,736
Mississippi	50,779	46,614	45,072	43,022	42,024	37,327	35,945	34,204	33,047	31,455
Missouri	56	57	61	60	54	91	130	226	202	269
Montana	34,554	32,844	32,814	32,680	30,467	29,957	29,584	30,813	30,921	29,225
Nebraska	6,611	6,120	6,182	5,968	5,862	6,068	6,240	6,671	6,872	6,380
Nevada	129	115	143	661	1,156	1,235	880	700	613	810
New Mexico	98,695	95,063	92,130	87,223	83,365	79,649	75,324	71,568	71,024	75,169
New York	896	875	857	824	852	855	824	841	834	831
North Dakota	19,697	20,452	21,725	23,273	24,812	30,914	40,337	45,424	47,271	50,690
Ohio	9,088	9,578	9,994	10,359	11,154	11,953	12,928	13,551	14,571	14,971
Oklahoma	177,785	163,123	161,426	156,382	150,456	143,642	150,140	154,056	158,621	158,604
Pennsylvania	3,478	3,264	3,019	2,715	2,887	2,874	2,651	3,729	4,282	4,282
South Dakota	494	472	447	632	869	846	765	973	1,158	1,172
Tennessee	769	682	598	820	593	614	743	918	1,132	1,056
Texas	1,262,126	1,221,929	1,189,523	1,137,880	1,074,050	1,018,094	977,436	945,132	925,296	902,676
Utah	39,363	42,301	34,304	33,113	31,368	27,728	24,978	25,860	22,440	29,534
Virginia	3	3	3	2	2	4	10	13	49	65
West Virginia	2,665	2,479	2,519	2,518	2,382	2,406	2,336	3,473	3,227	3,628
Wyoming	139,997	135,943	134,149	136,472	137,385	131,890	126,362	130,563	118,300	118,303
TOTAL	**3,202,585**	**3,056,779**	**2,976,180**	**3,009,265**	**3,178,216**	**3,121,310**	**3,146,365**	**3,128,624**	**3,156,715**	**3,170,999**
DAILY AVERAGE	**8,774**	**8,374**	**8,132**	**8,245**	**8,707**	**8,552**	**8,597**	**8,572**	**8,649**	**8,688**

Source: Energy Information Administration, Petroleum Supply Annuals

Note: Includes lease condensate.

NATURAL GAS PRODUCTION

(MMcf)	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	27,865	37,814	41,427	57,227	85,599	85,815	105,527	119,334	75,003	72,129
Alaska	128,935	160,270	166,072	187,889	203,088	220,754	230,588	242,564	264,364	267,096
Arizona	224	208	262	240	286	247	214	187	99	75*
Arkansas	123,975	116,237	109,533	104,096	106,792	109,452	111,808	92,986	124,611	85,300
California	365,354	318,308	354,334	311,462	311,084	248,206	309,783	380,730	383,977	395,517
Colorado	144,629	171,629	183,972	188,792	183,693	191,239	190,814	199,146	209,892	168,120
Florida	38,137	44,383	43,165	48,171	51,595	50,190	45,744	35,938	22,515	23,434
Illinois	1,436	1,440	1,556	1,003	1,159	1,585	1,574	1,295	1,162	1,015*
Indiana	176	346	192	183	163	350	463	330	233	190*
Kansas	886,782	843,625	829,170	781,289	854,484	797,762	735,035	640,114	429,597	437,804
Kentucky	71,876	60,511	66,137	60,902	70,044	59,520	57,180	61,312	51,924	46,405*
Louisiana	7,753,631	7,090,645	7,006,596	7,215,006	7,476,497	7,266,217	6,939,924	6,780,184	6,171,627	5,288,079
Maryland	133	93	75	82	88	28	68	56	36	25*
Michigan	69,133	102,113	119,262	129,954	148,047	159,731	158,302	152,593	153,051	136,091
Mississippi	78,787	74,345	70,762	82,995	106,579	144,077	185,469	211,371	167,231	150,634
Missouri	33	30	29	20	0	0	0	0	0	0
Montana	54,873	40,734	42,563	46,819	46,522	53,888	51,867	56,565	56,517	51,971
Nebraska	2,538	2,565	2,511	2,789	2,882	3,208	2,550	2,519	2,280	1,215*
New Mexico	1,244,779	1,217,430	1,230,976	1,202,973	1,174,198	1,181,363	1,149,781	1,134,113	991,178	889,502
New York	4,990	7,628	9,235	10,682	13,900	15,500	15,643	16,074	15,877	13,400*
North Dakota	31,206	24,786	31,470	29,173	30,499	18,468	42,346	42,573	53,818	70,267
Ohio	92,055	84,960	88,891	99,327	114,098	123,481	138,856	141,134	138,391	127,650*
Oklahoma	1,638,942	1,605,410	1,726,513	1,769,519	1,773,582	1,835,366	1,891,824	2,019,199	1,934,412	1,730,062
Oregon	0	0	0	0	0	2	5	5	3	5*
Pennsylvania	82,637	84,676	89,386	91,717	97,763	96,313	97,439	122,454	121,111	111,365*
South Dakota	0	0	0	0	0	914	1,193	1,155	2,311	1,580*
Tennessee	17	27	47	263	468	941	1,241	1,719	2,976	1,715*
Texas	8,170,798	7,485,764	7,191,859	7,051,027	6,548,184	7,174,623	7,251,879	7,050,207	6,468,817	5,913,034
Utah	50,522	55,354	57,416	60,696	58,416	58,605	87,766	91,191	94,255	107,000
Virginia	7,096	6,723	6,937	8,220	8,492	8,544	7,812	8,903	6,880	5,160*
West Virginia	202,306	154,484	153,322	152,767	148,564	150,505	156,551	161,251	150,850	134,261
Wyoming	326,657	316,123	328,768	330,180	357,267	414,416	409,541	410,499	424,657	427,386
TOTAL	**21,600,522**	**20,108,661**	**19,952,438**	**20,025,463**	**19,974,033**	**20,471,260**	**20,378,787**	**20,177,701**	**18,519,675**	**16,657,495**

Source: Energy Information Administration, Natural Gas Annuals

** Estimated*
Note: Data represents marketed production.

NUMBER OF PETROLEUM INDUSTRY EMPLOYEES — 1983

	MINING	*MANUFACTURING*		*TRANSPORTATION*		*WHOLESALE*	*RETAIL*	*TOTAL*
	Oil and Gas Extraction	*Petroleum Refining*	*Oils and Greases*	*Pipelines, Except Gas*	*Gas Distribution*	*Petroleum Products*	*Gasoline Stations*	
Alabama	1,758	402	29	104	2,998	4,558	7,375	17,224
Alaska	7,535	160	0	1,143	289	523	1,205	10,855
Arizona	163	76	0	100	964	1,304	7,311	9,918
Arkansas	3,946	765	†	†	2,448	2,594	4,414	14,167
California	40,081	27,624	662	1,040	10,941	15,776	59,222	155,346
Colorado	26,448	600	32	107	2,397	3,022	8,456	41,062
Connecticut	177	124	77	15	1,302	2,622	9,068	13,385
Delaware	40	1,032	11	0	346	351	1,360	3,140
District of Columbia	0	123	0	0	704	285	1,087	2,199
Florida	1,062	64	123	57	2,253	6,821	28,240	38,620
Georgia	113	109	138	510	3,602	6,013	14,818	25,303
Hawaii	†	413	0	0	353	503	3,577	4,846
Idaho	149	0	0	†	466	1,603	2,100	4,318
Illinois	6,116	6,729	791	1,022	8,659	10,727	23,848	57,892
Indiana	934	3,026	227	469	3,035	3,917	14,009	25,617
Iowa	30	0	56	172	1,138	2,975	11,177	15,548
Kansas	15,565	3,140	308	1,884	4,575	2,680	7,253	35,405
Kentucky	3,409	3,574	54	159	3,155	3,010	8,891	22,252
Louisiana	79,200	12,400	†	1,300	7,000	5,800	8,400	114,100
Maine	14	0	0	†	†	1,216	2,519	3,749
Maryland	0	0	229	0	1,266	3,530	12,815	17,840
Massachusetts	68	79	320	8	4,796	3,521	13,691	22,483
Michigan	4,117	1,998	436	217	8,098	5,040	19,981	39,887
Minnesota	†	†	†	196	2,457	2,677	14,510	19,840
Mississippi	8,100	1,660	120	151	2,170	3,530	4,670	20,401
Missouri	165	†	377	252	5,010	6,827	14,282	26,913
Montana	3,760	1,026	0	92	117	1,529	2,406	8,930
Nebraska	223	15	154	97	3,601	1,758	6,078	11,926
Nevada	313	38	0	20	555	402	3,332	4,660
New Hampshire	1	0	3	3	315	450	2,350	3,122
New Jersey	110	8,300	1,020	165	2,054	4,034	19,205	34,888
New Mexico	12,988	971	22	301	3,771	1,774	4,029	23,856
New York	2,680	11,145	373	126	7,083	11,002	28,229	60,638
North Carolina	13	0	175	116	2,427	5,087	9,193	17,011
North Dakota	5,387	240	0	172	665	2,377	2,019	10,860
Ohio	11,283	5,794	624	673	7,715	5,996	27,289	59,374
Oklahoma	74,870	7,648	290	2,454	5,773	7,124	6,373	104,532
Oregon	82	†	†	†	1,391	2,173	7,292	10,938
Pennsylvania	4,868	11,953	1,300	730	8,702	10,968	26,472	64,993
Rhode Island	28	0	†	0	848	572	2,313	3,761
South Carolina	14	†	†	†	718	3,411	6,904	11,047
South Dakota	124	3	0	62	130	1,426	2,490	4,235
Tennessee	763	318	53	45	1,744	4,558	12,084	19,565
Texas	252,408	40,931	913	5,245	29,375	25,589	34,788	389,249
Utah	4,493	863	†	83	2,992	1,945	4,065	14,441
Vermont	†	0	†	0	124	282	1,656	2,062
Virginia	200	200	†	100	2,500	7,400	13,700	24,100
Washington	214	1,554	61	84	1,551	2,972	9,279	15,715
West Virginia	5,866	482	64	133	5,454	2,065	3,731	17,795
Wisconsin	15	†	0	149	2,917	3,713	13,234	20,028
Wyoming	196,551	15,972	12	4,432	11,900	13,942	33,643	276,452
TOTAL	**776,444**	**171,551**	**9,054**	**24,188**	**184,844**	**223,974**	**586,433**	**1,976,488**

Source: Various agencies cooperating with the U.S. Bureau of Labor Statistics

† *Unavailable*
Note: All figures are estimated.

Compiled by IPAA — September 1984

SEVERANCE AND PRODUCTION TAXES PAID

(thous. $)	*1979*	*1980*	*1981*	*1982*	*1983*
Alabama	17,309,663	30,018,542	55,757,124	58,035,555	80,958,822
Alaska	251,636,000	830,520,000	1,170,090,000	1,581,116,509	1,493,700,000
Arkansas	11,260,458	17,857,544	27,047,104	24,602,370	22,812,581
California	9,102,750	9,024,876	10,248,781	5,123,528	5,467,287
Colorado	7,088,786	9,534,645	18,010,500	23,251,282	23,251,282
Florida	52,426,514	74,698,164	95,240,320	63,743,394	37,986,235
Indiana	1,158,521	1,756,195	1,835,038	1,764,422	1,578,522
Kansas	940,688	734,955	717,708	1,176,375	2,265,964
Kentucky	1,211,450	876,375	12,543,912	13,736,993	14,282,975
Louisiana	458,009,265	513,150,907	803,146,950	971,677,140	859,930,363
Maryland	5,739	4,475	3,154	2,399	1,417
Michigan	14,148,813	46,993,884	77,105,018	83,805,000	80,352,430
Mississippi	34,973,793	69,011,087	108,145,167	113,669,168	99,158,664
Montana	10,550,030	16,967,783	29,782,765	50,075,162	44,236,569
Nebraska	2,018,116	3,654,552	4,776,112	5,969,424	4,325,191
Nevada	†	†	3,488	2,688	25,242
New Mexico	185,348,939	287,151,670	369,331,199	348,436,852	347,547,609
North Dakota	15,094,169	53,592,630	71,212,304	76,138,189	79,655,787
Ohio	1,431,327	1,579,386	1,731,210	1,332,918	1,856,260
Oklahoma	283,790,573	437,305,806	601,846,204	744,628,676	709,917,415
Oregon	†	†	†	427,370,000	415,882
South Dakota	455,780	764,083	1,270,099	1,707,446	1,706,982
Tennessee	115,617	378,350	530,106	931,076	1,398,216
Texas	1,026,168,646	1,527,867,446	2,204,602,015	2,373,846,250	2,251,313,556
Utah	6,977,535	10,583,694	16,040,549	22,295,889	26,020,868
Virginia	12,238	7,655	†	†	†
West Virginia	12,001,597	21,852,429	31,007,930	39,762,342	35,300,000
Wyoming	67,088,040	67,088,040	269,100,000	257,525,906	381,418,027
TOTAL	**$2,470,325,047**	**$4,032,975,173**	**$5,981,124,757**	**$7,291,726,953**	**$6,606,884,146**

Source: Various state and industry contacts

†Unavailable

Note: Includes state and local taxes.

CONSUMPTION OF PETROLEUM PRODUCTS — 1983

(thous. bbls.)	Motor Gasoline	Aviation Fuels	Middle Distillates	Residual Fuel	Asphalt Road Oil	All Other	Total Products
Alabama	34,811	886	18,516	5,118	4,582	20,589	84,502
Alaska	5,109	8,627	8,056	337	424	3,468	26,021
Arizona	30,231	3,244	8,219	88	2,030	11,005	54,817
Arkansas	22,760	359	14,342	1,283	2,257	12,925	53,926
California	253,531	39,087	68,412	58,705	13,700	91,985	525,420
Colorado	33,033	5,015	9,892	13	2,317	10,886	61,156
Connecticut	25,228	793	20,633	22,311	909	13,411	83,285
Delaware	6,310	79	3,128	5,485	256	2,756	18,014
District of Columbia	3,665	90	2,543	1,064	†	1,645	9,007
Florida	106,055	21,446	29,725	54,415	7,055	45,835	264,531
Georgia	61,779	12,558	19,679	4,307	6,445	20,660	125,428
Hawaii	7,307	5,744	4,762	12,228	319	7,667	38,027
Idaho	9,808	281	4,448	202	816	3,015	18,570
Illinois	89,339	13,042	31,388	11,793	6,613	63,518	215,693
Indiana	52,060	3,245	28,519	4,231	7,131	24,456	119,642
Iowa	28,310	495	16,335	291	1,976	22,414	69,821
Kansas	28,501	825	13,526	760	1,787	17,642	63,041
Kentucky	36,764	3,121	18,307	1,030	2,590	18,911	80,723
Louisiana	47,579	7,682	38,632	38,254	3,225	107,084	242,456
Maine	12,228	376	9,281	12,670	721	7,423	42,699
Maryland	41,495	2,156	17,151	9,535	5,346	13,386	89,069
Massachusetts	45,057	5,990	32,006	34,810	1,394	35,073	154,330
Michigan	80,843	3,683	23,314	3,192	3,375	29,252	143,659
Minnesota	34,765	3,348	20,621	1,594	5,815	23,139	89,282
Mississippi	24,118	1,613	12,840	4,326	2,100	11,488	56,485
Missouri	50,110	4,534	20,961	818	4,214	25,547	106,184
Montana	9,036	541	5,949	1,512	1,393	3,030	21,461
Nebraska	17,106	643	8,993	170	824	8,956	36,692
Nevada	9,201	4,023	3,597	39	926	2,563	20,349
New Hampshire	4,481	60	5,163	3,568	482	4,592	18,346
New Jersey	92,489	30,051	46,091	28,095	7,533	40,370	244,629
New Mexico	13,181	774	9,236	529	2,187	35,561	61,468
New York	93,263	2,223	62,644	79,354	7,065	81,894	326,443
North Carolina	53,310	3,605	23,010	4,372	3,964	27,930	116,191
North Dakota	6,277	179	7,041	954	1,343	4,332	20,126
Ohio	98,776	4,609	41,381	2,090	8,313	64,416	219,585
Oklahoma	39,249	3,101	14,615	603	5,339	19,928	82,835
Oregon	28,391	1,479	15,070	7,726	2,679	8,483	63,828
Pennsylvania	108,752	7,471	55,394	24,008	4,911	32,090	232,626
Rhode Island	9,522	264	3,982	1,203	1,494	5,217	21,682
South Carolina	29,723	488	10,325	2,255	2,344	12,350	57,485
South Dakota	8,143	213	4,999	44	658	4,289	18,346
Tennessee	49,365	1,614	20,178	647	3,697	19,012	94,513
Texas	225,138	34,913	103,884	50,898	14,446	235,964	665,243
Utah	13,121	2,026	6,885	802	1,011	7,843	31,688
Vermont	2,368	49	3,137	271	78	3,880	9,783
Virginia	55,672	7,115	22,757	7,328	3,479	17,958	114,309
Washington	43,805	9,169	18,306	8,791	2,847	17,602	100,520
West Virginia	13,933	217	7,938	1,050	503	10,491	34,132
Wisconsin	33,883	1,442	20,484	1,954	2,515	24,221	84,499
Wyoming	7,000	152	11,982	1,481	488	5,694	26,797
TOTAL	**2,235,981**	**264,740**	**1,028,279**	**518,604**	**167,916**	**1,343,844**	**5,559,364**

Sources: Ethyl Corporation, Energy Information Administration and The Asphalt Institute.
†Included with Maryland data

1. Includes kerosine
2. Includes LPG, naphtha, lubricants, waxes, petroleum coke and still gas.

Compiled by IPAA — September 1984

PEAK YEAR MILESTONES

Seismic Crew Months Worked	1952	7,958	
Rotary Rigs Active	1981	3,970	
New-field Wildcat Wells Drilled	1981	8,052	
Wildcat Wells Drilled	1982	16,482	
Oil Wells Drilled	1982	40,298	
Gas Wells Drilled	1982	18,953	
Dry Holes Drilled	1982	26,549	
Total Wells Drilled	1982	88,106	
Footage Drilled	1982	401,500,000	*ft.*
Crude Oil Production	1970	9,637,000	*b/d*
Stripper Well Production	1961	1,621,675	*b/d*
Petroleum Imports	1977	8,787,000	*b/d*
Petroleum Demand	1978	19,224,000	*b/d*
Natural Gas Production	1973	22,647,549	*MMcf*
Natural Gas Imports	1979	1,253,383	*MMcf*
Natural Gas Exports	1968	93,745	*MMcf*

FINANCIAL DATA

	Rates of Return		*Exploration & Development Outlays*		
	Oil & Gas Companies	*All Mftg. Companies*	*Larger Companies*	*Independents*	*Total*
	(%)		*(million $)*		
1961	8.7	8.9	2,417	1,583	4,000
1962	8.8	9.8	2,848	1,577	4,425
1963	9.8	10.3	2,452	1,673	4,125
1964	10.1	11.6	2,817	1,633	4,450
1965	11.3	13.0	2,847	1,363	4,210
1966	12.3	13.4	2,990	1,260	4,250
1967	12.6	11.7	3,212	1,153	4,365
1968	12.2	12.1	4,087	1,303	5,390
1969	10.9	11.5	3,786	1,482	5,258
1970	9.9	9.3	3,119	1,656	4,775
1971	9.3	9.7	2,740	1,160	3,900
1972	9.6	10.6	4,225	2,255	6,480
1973	10.5	13.0	5,275	2,865	8,140
1974	14.6	14.9	8,550	3,905	13,355
1975	12.9	11.6	6,830	3,420	10,250
1976	15.2	13.9	8,646	5,864	14,510
1977	14.2	14.2	10,305	6,195	16,500
1978	13.8	15.0	11,275	8,025	19,300
1979	18.2	16.5	15,000	11,750	26,750
1980	18.1	14.1	20,533	15,647	36,200
1981	16.4	14.0	29,765	26,710	56,475
1982	12.1	9.2	29,500	25,900	55,400

Source: Chase Manhattan Bank and Federal Trade Commission
Note: 1983 data unavailable

GASOLINE RETAIL PRICES

(¢/gal.)	*Excluding Taxes*	*Taxes*	*Pump Price*
1964	19.98	10.37	30.35
1965	20.71	10.46	31.17
1966	21.57	10.51	32.08
1967	22.55	10.60	33.15
1968	22.93	10.78	33.71
1969	23.85	10.99	34.84
1970	24.55	11.14	35.69
1971	25.24	11.24	36.48
1972	24.46	11.67	36.13
1973	26.88	11.94	38.82
1974	41.20	12.00	53.20
1975	44.93	11.77	56.70
1976	46.97	12.03	59.00
1977	49.83	12.37	62.20
1978	49.98	12.63	62.60
1979	72.95	12.75	85.70
1980	107.07	11.83	118.90
1981	119.91	13.01	132.92
1982	111.29	14.23	125.52
1983	102.69	19.19	121.88

Source: Oil and Gas Journal
Note: Data represents regular leaded gasoline.

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Upcoming IPAA Meetings

1984 Annual Meeting
October 21-23, 1984
San Diego, Calif.

1985 Mid-Year Meeting
May 29-31, 1985
San Francisco, Calif.

U.S. WHOLESALE PETROLEUM PRICES

	Motor Gasoline	Kerosine	Distillate Fuel Oil	Residual Fuel Oil	Average Four Products	
	(¢/gal.)				(¢/gal.)	($/bbl.)
1935	5.42	4.10	3.26	1.74	3.93	1.65
1936	6.32	3.94	3.39	1.81	4.41	1.85
1937	6.68	4.81	3.96	2.08	4.80	2.02
1938	5.97	4.57	3.62	1.55	4.22	1.77
1939	5.79	4.16	3.34	1.50	4.06	1.71
1940	5.26	4.36	3.55	1.74	3.91	1.64
1941	6.05	4.40	3.67	2.05	4.41	1.85
1942	6.14	4.56	3.91	2.18	4.54	1.91
1943	6.32	4.72	4.09	2.34	4.71	1.98
1944	6.47	4.78	4.34	2.49	4.87	2.05
1945	6.48	5.18	5.33	2.60	4.93	2.07
1946	6.60	5.70	5.06	3.05	5.26	2.21
1947	8.57	7.28	6.51	4.31	6.92	2.91
1948	10.53	9.92	8.94	5.72	8.81	3.70
1949	10.71	9.11	7.72	3.31	7.96	3.34
1950	10.86	9.39	7.97	3.98	8.29	3.48
1951	11.40	9.85	8.50	4.42	8.79	3.69
1952	11.38	9.90	8.52	3.84	8.62	3.62
1953	12.01	10.23	8.83	3.73	8.96	3.76
1954	11.66	10.40	8.94	3.97	8.88	3.73
1955	11.62	10.53	9.08	4.53	9.06	3.81
1956	11.75	10.99	9.45	5.30	9.43	3.96
1957	12.34	11.54	10.05	6.15	10.10	4.24
1958	11.74	10.96	9.39	4.82	9.27	3.89
1959	11.64	11.26	9.31	4.79	9.22	3.87
1960	11.61	11.17	8.79	4.88	9.15	3.84
1961	11.62	11.49	9.10	4.85	9.21	3.87
1962	11.52	11.42	9.11	4.78	9.13	3.84
1963	11.35	11.51	9.18	4.61	9.01	3.79
1964	11.27	10.93	8.65	4.50	8.83	3.71
1965	11.52	11.28	9.04	4.81	9.12	3.83
1966	11.59	11.49	9.09	4.73	9.15	3.84
1967	11.84	11.96	9.71	4.53	9.33	3.92
1968	11.55	12.03	9.84	4.30	9.14	3.84
1969	11.80	11.98	10.06	4.20	9.27	3.89
1970	12.33	12.43	10.45	6.14	10.20	4.28
1971	12.70	12.90	10.75	7.76	10.94	4.59
1972	12.70	12.87	10.61	7.60	10.87	4.57
1973	14.72	14.08	12.61	8.45	12.49	5.25
1974	25.53	24.02	22.57	20.43	23.48	9.86
1975	30.27	27.41	26.09	22.03	27.03	11.35
1976	33.82	31.67	30.38	21.66	29.55	12.41
1977	36.99	35.81	34.41	25.87	33.21	13.95
1978	39.22	37.23	35.66	23.00	33.72	14.16
1979	56.84	56.60	54.47	33.63	49.50	20.79
1980	87.40	80.26	78.21	44.43	72.77	30.56
1981	101.63	101.03	97.20	61.17	88.75	37.28
1982	92.90	97.18	91.95	57.80	82.44	34.62
1983	83.75	85.12	80.05	57.30	75.33	31.64

Source: IPAA

Note: Data reflects price trends only.

Compiled by IPAA — September 1984

WHOLESALE PETROLEUM PRICES (EAST OF CALIFORNIA)

	Motor Gasoline	*Kerosine*	*Distillate Fuel Oil*	*Residual Fuel Oil*	*Average Four Products*	
		(¢/gal.)			(¢/gal.)	($/bbl.)
1935	5.45	4.12	3.37	1.79	3.97	1.67
1936	6.12	4.01	3.52	1.86	4.35	1.83
1937	6.23	4.76	4.07	2.19	4.62	1.94
1938	5.45	4.39	3.78	1.62	4.00	1.68
1939	5.29	3.99	3.55	1.57	3.85	1.62
1940	4.96	4.33	3.80	1.90	3.84	1.61
1941	5.97	4.38	3.90	2.19	4.45	1.87
1942	6.28	4.57	4.17	2.26	4.67	1.96
1943	6.41	4.69	4.19	2.31	4.76	2.00
1944	6.42	4.73	4.17	2.46	4.81	2.02
1945	6.36	4.72	4.16	2.59	4.81	2.02
1946	6.40	5.38	4.84	3.08	5.12	2.15
1947	8.45	7.14	6.44	4.48	6.89	2.89
1948	10.21	9.62	8.94	5.90	8.70	3.65
1949	10.39	8.36	7.34	3.10	7.64	3.21
1950	10.77	8.76	7.79	4.10	8.22	3.45
1951	11.26	9.31	8.43	4.47	8.70	3.65
1952	11.25	9.38	8.40	3.76	8.48	3.56
1953	11.79	9.40	8.45	3.59	8.71	3.66
1954	11.43	9.55	8.71	3.92	8.68	3.64
1955	11.42	9.76	9.02	4.66	8.95	3.76
1956	11.55	10.26	9.48	5.34	9.31	3.91
1957	12.06	10.64	9.95	6.03	9.86	4.14
1958	11.61	9.87	9.12	4.56	9.03	3.79
1959	11.57	10.14	9.36	4.70	9.11	3.83
1960	11.69	10.01	8.93	4.86	9.14	3.84
1961	11.72	10.41	9.31	4.82	9.22	3.87
1962	11.55	10.34	9.27	4.67	9.08	3.82
1963	11.33	10.44	9.32	4.57	8.96	3.76
1964	11.29	9.71	8.62	4.56	8.79	3.69
1965	11.56	10.15	9.00	4.82	9.08	3.81
1966	11.55	10.41	9.13	4.72	9.08	3.81
1967	11.76	11.00	9.74	4.55	9.26	3.89
1968	11.50	11.09	9.81	4.33	9.08	3.81
1969	11.82	11.03	9.89	4.34	9.25	3.88
1970	12.57	11.59	10.32	6.35	10.32	4.33
1971	12.81	12.18	10.66	7.55	10.88	4.57
1972	12.75	12.14	10.58	7.36	10.78	4.53
1973	14.83	13.64	12.47	8.48	12.51	5.25
1974	25.10	24.00	22.20	21.62	23.57	9.90
1975	30.23	27.61	25.98	23.06	27.31	11.47
1976	33.71	31.42	29.80	22.24	29.57	12.42
1977	36.83	36.33	34.57	25.99	33.21	13.95
1978	38.78	38.00	36.04	23.46	33.73	14.17
1979	56.29	56.51	53.96	32.63	48.85	20.52
1980	87.04	80.66	78.12	44.34	72.57	30.48
1981	101.56	102.36	98.75	61.84	89.26	34.49
1982	92.89	99.03	92.51	57.30	82.51	34.65
1983	84.55	87.03	80.77	56.36	75.65	31.77

Source: IPAA

Note: Data reflects price trends only.

STATISTICAL SUMMARY OF THE PETROLEUM PRODUCING INDUSTRY

YEAR	PRODUCTION			IMPORTS			TOTAL[2] PETROLEUM SUPPLY	PETROLEUM DEMAND			CRUDE OIL RESERVES		CRUDE OIL PRICE
	Crude Oil	NGL	Total Production	Crude[1] Oil	Refined Products	Total Imports		Domestic	Export	Total Demand	Proved Reserves	New Reserves	
	(thous. b/d)										(thous. bbls.)		($/bbl.)
1954	6,342	691	7,033	656	396	1,052	8,117	7,764	355	8,119	29,560,746	2,873,037	2.78
1955	6,807	771	7,578	782	466	1,248	8,870	8,464	368	8,832	30,012,170	2,870,724	2.77
1956	7,151	800	7,951	934	502	1,436	9,439	8,783	430	9,213	30,434,649	2,974,336	2.79
1957	7,170	808	7,978	1,022	552	1,574	9,613	8,827	568	9,395	30,300,405	2,424,800	3.09
1958	6,710	807	7,517	953	747	1,700	9,282	9,118	276	9,394	30,535,917	2,608,242	3.01
1959	7,054	879	7,433	966	814	1,780	9,799	9,526	211	9,737	31,719,347	3,666,745	2.90
1960	7,035	929	7,964	1,016	799	1,815	9,926	9,798	202	10,000	31,613,211	2,365,328	2.88
1961	7,183	991	8,174	1,045	872	1,917	10,270	9,976	174	10,150	31,758,505	2,657,567	2.89
1962	7,332	1,021	8,353	1,127	955	2,082	10,610	10,400	168	10,568	31,389,223	2,180,896	2.90
1963	7,542	1,098	8,640	1,131	992	2,123	10,965	10,743	208	10,951	30,969,990	2,174,110	2.89
1964	7,614	1,155	8,769	1,198	1,060	2,258	11,244	11,023	202	11,225	30,990,510	2,664,767	2.88
1965	7,804	1,210	9,014	1,239	1,229	2,468	11,702	11,513	187	11,700	31,352,391	3,048,079	2.86
1966	8,295	1,284	9,579	1,225	1,348	2,573	12,398	12,085	198	12,283	31,452,127	2,963,978	2.88
1967	8,810	1,409	10,219	1,128	1,409	2,537	13,049	12,560	307	12,867	31,376,670	2,962,122	2.92
1968	9,096	1,504	10,600	1,291	1,549	2,840	13,787	13,393	231	13,624	30,707,117	2,454,635	2.94
1969	9,238	1,590	10,828	1,409	1,757	3,166	14,333	14,137	233	14,370	29,631,862	2,120,036	3.09
1970	9,637	1,660	11,297	1,324	2,095	3,419	15,071	14,697	259	14,956	39,001,335	12,688,918	3.18
1971	9,463	1,694	11,157	1,680	2,245	3,925	15,520	15,213	224	15,437	38,062,957	2,317,732	3.39
1972	9,441	1,744	11,185	2,216	2,525	4,741	16,370	16,367	222	16,589	36,339,408	1,557,848	3.39
1973	9,208	1,738	10,946	3,244	3,012	6,256	17,687	17,308	231	17,539	35,299,839	2,145,831	3.89
1974	8,774	1,688	10,462	3,477	2,635	6,112	17,065	16,652	221	16,873	34,249,956	1,993,573	6.74
1975	8,375	1,632	10,007	4,105	1,951	6,056	16,577	16,322	209	16,531	32,682,127	1,318,463	7.56
1976	8,132	1,604	9,736	5,287	2,026	7,313	17,640	17,461	223	17,684	30,942,166	1,085,291	8.14
1977	8,245	1,618	9,863	6,594	2,193	8,787	19,218	18,431	243	18,674	29,486,402	1,403,780	8.57
1978	8,707	1,567	10,274	6,194	2,008	8,202	18,969	18,847	362	19,209	27,803,760	1,347,616	8.96
1979	8,552	1,583	10,135	6,452	1,937	8,389	19,084	18,516	471	18,987	27,051,289	2,205,673	12.51
1980	8,597	1,573	10,170	5,219	1,646	6,865	17,709	17,056	544	17,600	29,805,000	2,970,000	21.59
1981	8,572	1,609	10,181	4,141	1,599	5,740	16,540	16,058	595	16,653	29,426,000	2,570,000	31.77
1982	8,649	1,550	10,199	3,323	1,625	4,948	15,676	15,296	815	16,111	27,858,000	1,382,000	28.52
1983	8,688	1,559	10,247	3,096	1,721	4,817	15,801	15,231	739	15,970	N/A	N/A	26.13

YEAR	NATURAL GAS			GAS RESERVES		NATURAL GAS PRICE	DRILLING DATA				TOTAL FOOTAGE DRILLED	HOURLY EARNINGS	
	Marketed Production	Gas Imports	Gas Exports	Proved Reserves	New Reserves		Oil Wells	Gas Wells	Dry Holes	Total Wells		Oil & Gas Industry	All Mfg. Industry
	(MMcf)					(¢/Mcf)	(number of wells)				(mill. ft.)	($ per hour)	
1954	8,742,546	6,847	28,726	210,560,931	9,637,482	10.1	29,773	3,974	19,168	53,927	219.0	2.15	1.78
1955	9,405,351	10,888	31,029	222,482,544	21,984,780	10.4	31,567	3,608	20,742	56,677	226.3	2.20	1.86
1956	10,081,923	10,380	35,963	236,483,215	24,849,356	10.8	30,737	4,543	21,797	58,126	233.9	2.35	1.95
1957	10,680,258	37,941	41,655	245,230,137	20,186,812	11.3	28,012	4,620	20,976	53,838	223.1	2.47	2.05
1958	11,030,298	135,797	38,719	252,761,792	18,954,306	11.9	24,578	4,803	19,043	50,039	198.2	2.54	2.11
1959	12,046,115	133,990	18,413	261,170,431	20,781,702	12.9	25,800	5,029	19,265	51,764	209.2	2.65	2.19
1960	12,771,038	155,646	11,332	262,326,326	14,175,251	14.0	21,186	5,258	17,574	46,751	190.7	2.69	2.26
1961	13,182,029	217,671	10,689	266,273,642	17,325,965	15.1	21,101	5,664	17,106	46,962	192.1	2.80	2.32
1962	13,801,244	399,353	15,728	272,278,858	19,643,189	15.5	21,249	5,848	16,682	46,179	198.6	2.83	2.39
1963	14,666,559	430,997	16,865	276,151,233	18,418,400	15.8	20,288	4,751	16,347	43,653	184.4	2.92	2.46
1964	15,462,143	440,918	19,497	281,251,454	20,447,249	15.4	20,620	4,855	17,488	45,236	189.9	2.95	2.53
1965	16,039,753	456,394	26,132	286,468,923	21,469,762	15.6	18,761	4,724	16,025	41,423	181.5	3.03	2.61
1966	17,206,628	479,780	14,639	289,332,805	20,354,955	15.7	16,447	4,167	15,770	38,536	165.5	3.13	2.72
1967	18,171,325	564,226	81,614	292,907,703	21,955,736	16.0	15,329	3,659	13,246	33,818	144.7	3.25	2.83
1968	19,322,400	651,885	93,745	287,349,852	13,815,576	16.4	14,331	3,456	12,812	32,914	149.3	3.39	3.01
1969	20,698,240	726,951	51,304	275,108,835	8,482,173	16.7	14,368	4,083	13,736	34,053	161.0	3.60	3.19
1970	21,920,642	820,780	69,813	290,746,408	37,598,377	17.1	13,020	3,840	11,260	29,467	142.4	3.83	3.36
1971	22,493,012	934,548	80,212	278,805,618	10,135,722	18.2	11,858	3,830	10,163	27,300	128.3	4.15	3.56
1972	22,531,698	1,019,496	78,013	266,084,846	9,791,126	18.6	11,306	4,928	11,057	28,755	138.3	4.52	3.82
1973	22,647,549	1,032,901	77,169	249,950,207	6,470,767	21.6	9,902	6,385	10,305	27,602	138.9	4.79	4.09
1974	21,600,522	959,284	76,789	237,132,497	8,500,760	30.4	12,784	7,240	11,674	32,893	153.2	5.30	4.42
1975	20,108,661	953,008	72,675	228,200,176	10,786,249	44.5	16,408	7,580	13,247	39,097	178.5	6.01	4.83
1976	19,952,438	963,768	64,711	216,026,047	7,367,918	58.0	17,059	9,085	13,621	41,455	185.3	6.61	5.22
1977	20,025,463	1,011,001	55,626	208,877,878	12,298,854	79.0	18,912	11,378	14,692	46,479	215.0	7.16	5.68
1978	19,974,033	965,545	52,532	200,301,707	10,734,877	90.5	17,775	13,064	16,218	48,513	231.4	8.05	6.17
1979	20,471,260	1,253,383	55,673	194,916,624	14,525,270	117.8	19,383	14,681	15,752	51,263	243.2	8.78	6.70
1980	20,179,724	984,767	48,731	199,021,000	16,723,000	159.0	27,026	15,730	18,089	62,462	288.9	9.70	7.27
1981	19,955,823	903,949	59,372	201,730,000	21,446,000	198.0	37,671	17,894	22,973	80,537	366.3	10.78	7.99
1982	18,519,675	933,336	51,728	210,512,000	17,288,000	246.0	40,298	18,953	26,549	88,106	401.5	11.81	8.50
1983	16,657,495	944,000	55,000	N/A	N/A	262.0	37,207	15,628	23,494	78,542	330.8	12.38	8.84

Sources: Drilling data from American Petroleum Institute and American Association of Petroleum Geologists. Reserves from American Gas Association and EIA. All other data from Energy Information Administration.

N/A = Not Available

[1]*Excludes imports to Strategic Petroleum Reserve*

[2]*Includes net processing gain, unaccounted crude oil and other hydrocarbons*

Notes: Drilling data includes service wells, stratigraphic and core tests. Reserve figures estimated as of December 31st.

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GLOSSARY

Abandonments — The number of producing wells that have been abandoned during the year.

Acreage Under Lease — The number of land acres leased by the owner for searching out petroleum.

Artificial Lifting — Any method used to stimulate the production of oil and gas in excess of the flow resulting under natural reservoir pressures, e.g. pumping, secondary or tertiary recovery.

Associated Gas — Natural gas that occurs with crude oil in the reservoir either as free gas or in solution, also known as gas-cap gas.

Barrel — The standard volumetric measure for petroleum, equivalent to 42 U.S. gallons.

Casing — Heavy steel pipe used in oil wells to seal off fluids from the bore hole and to prevent the walls from caving in.

Chase Bank Group — A group of 24 of the largest U.S. oil companies from which Chase Manhattan Bank gathers annual financial and operating data. All other oil companies are aggregated to represent the independent sector of the domestic industry.

Christmastree — An assembly of flanges and valves mounted on the casing at the surface through which a well is produced, used for testing the well and shutting it in if necessary.

Condensate — A mixture of liquid hydrocarbons at atmospheric conditions which occur in a gaseous state underground, sometimes known as distillate or natural gasoline.

Crew Months — The standard time measure of the geophysical search for petroleum.

Crude Oil — Hydrocarbons in liquid unprocessed form that vary significantly in properties such as API gravity, viscosity and sulfur content.

Cubic Foot — The standard measure for natural gas; the amount required to fill a volume of one cubic foot under given atmospheric conditions.

Development Well — Either an oil, gas or dry hole drilled within an area known to be productive.

Distillate Fuel Oil — One of the petroleum fractions produced by conventional distillate, includes fuel oil and diesel fuel.

Dry Hole — A completed well which is not productive of oil and gas in commercial quantities.

Dry Natural Gas — Natural gas that does not contain dissolved liquid hydrocarbons.

Exploratory Well — Either an oil, gas or dry hole drilled to discover an oil-bearing formation or its limits.

Field — An area that encompasses a group of oil and gas wells, underlaid by one or more reservoirs.

Gas Well — An exploratory or development well completed for the production of natural gas.

Liquefied Petroleum Gas (LPG) — Butane, propane and other light products separated from natural gasoline or crude oil by fractionation or other processes. At atmospheric pressure, it reverts to the gaseous state.

Middle Distillates — A general classification that includes distillate fuel oil and kerosine.

Natural Gas — Hydrocarbons in gaseous form or mixed with crude oil.

Natural Gas Liquids (NGL) — Hydrocarbons found with natural gas that are recoverable by condensation or absorption, such as LPG or natural gasoline.

Nonassociated Gas — Free natural gas that does not occur in contact or dissolved with crude oil in the reservoir.

Oil Well — An exploratory or development well completed for the production of crude oil.

Petroleum — Includes in its broadest sense the entire spectrum of hydrocarbons — gaseous, liquid and solid.

Pipeline — A line of tubes with pumping machinery that transports oil or gas from the wellhead to the storage tank or refinery.

Product — Any commodity made from oil or gas through the refinery process.

Proved Reserves — The estimated quantity of crude oil, natural gas or NGL that is shown with reasonable certainty to be recoverable from known fields under existing economic and operating conditions.

Refinery — A plant for separating crude oils and converting the major components into finished products.

Reservoir — A permeable sedimentary rock formation which is porous enough to allow oil, gas and water to move freely. Hydrocarbons are found in the sealed portions known as traps.

Residual Fuel Oil — The heavy, high-viscosity leftover from the refining process, used mainly for industrial purposes.

Rotary Drilling Rig — A derrick equipped with modern rotary equipment capable of drilling a bore hole with a bit attached to a rotating column of steel pipe, in contrast to a cable tool rig which drills on the percussion principle.

Seismic Exploration Activity — The search for geological structures which are potential petroleum-bearing formations. A group of geophysicists explode charges in shot holes and interpret on geophones the data from seismic shocks.

Severance Tax — A tax levied by some states on each barrel of oil or each thousand cubic feet of gas produced.

Strategic Petroleum Reserve — Crude oil inventories held in government underground storage for use during periods of supply interruptions.

Stratigraphic Test — A hole drilled to gather information about a stratigraphic formation such as the general permeability and porosity of the rocks; includes core tests.

Stripper Well — A producing well which pumps or "strips" less than 10 barrels of oil or 60 Mcf of natural gas per day.

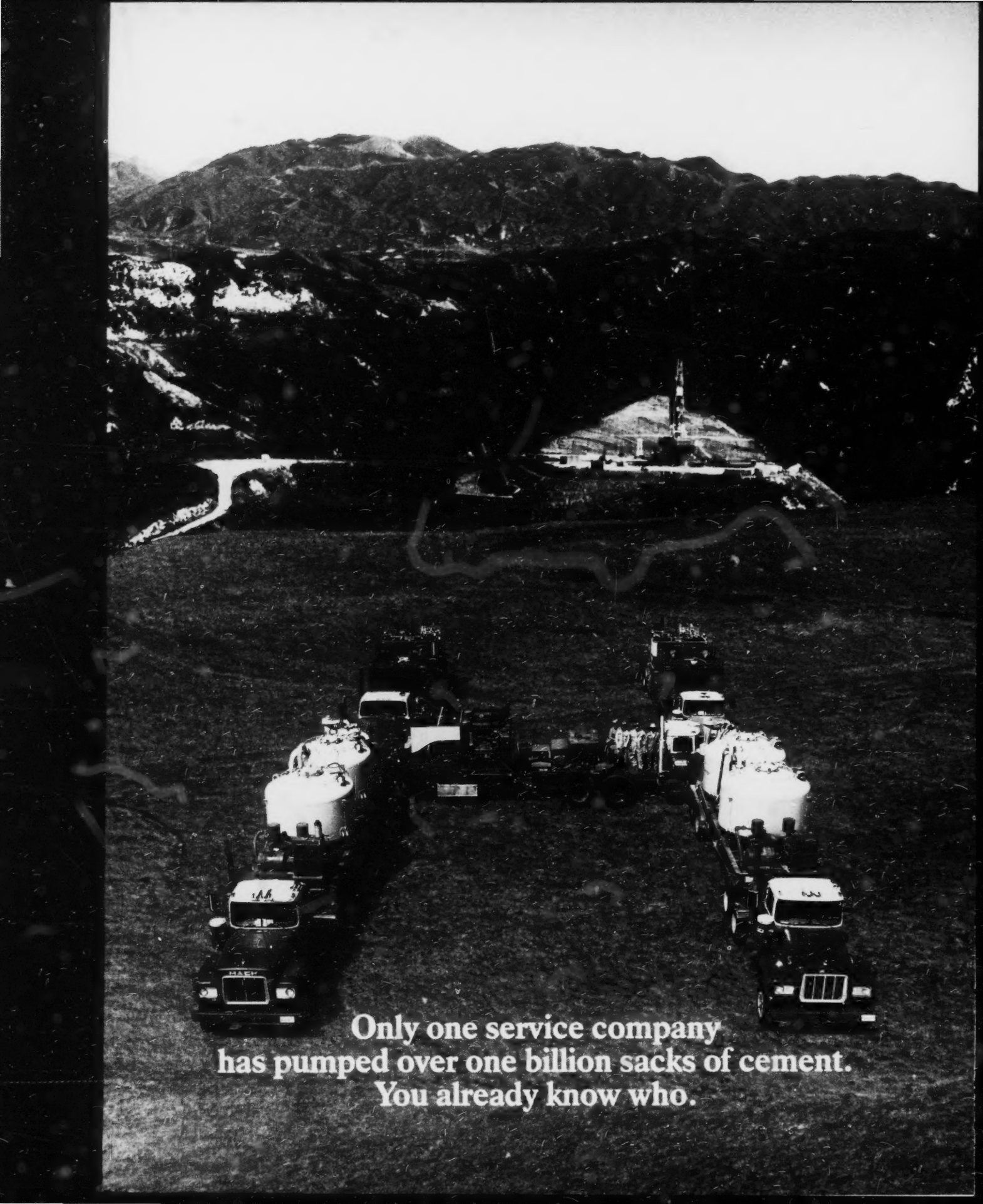
Stripper Well Reserves — The estimated amount of additional oil or gas which can be recovered by (1) primary means or (2) secondary recovery methods.

Well — A hole drilled to find or produce hydrocarbons, or to provide services related to their production.

Wildcat Well — A type of exploratory well drilled in an unproven area where there has been no previous production.

NOTES

NOTES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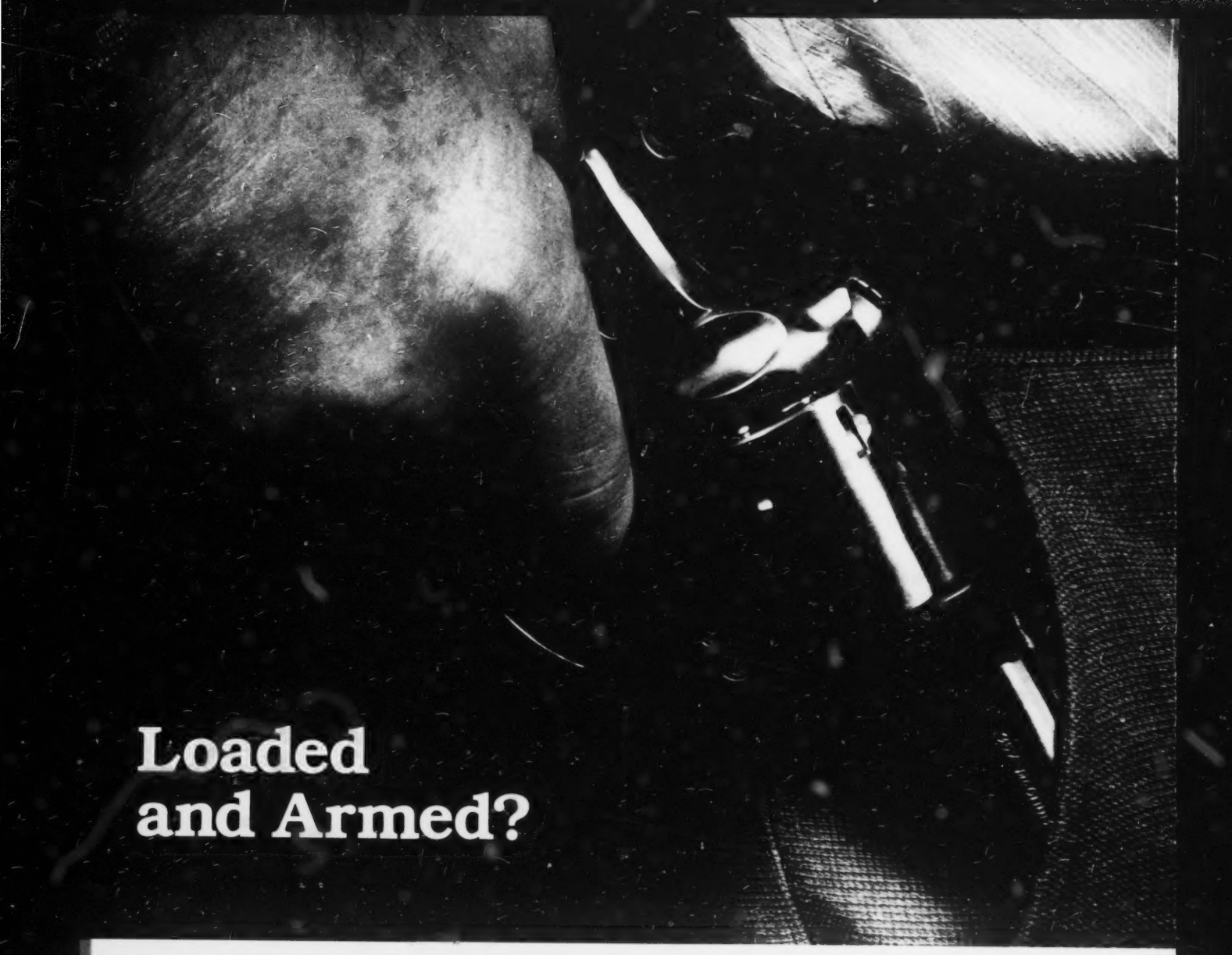

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